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**Vol. I**

**TRANSCRIPT OF RECORD**

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**Supreme Court of the United States**

**OCTOBER TERM, 1942**

**No. 332**

**LERoy J. LEISHMAN, PETITIONER,**

**ASSOCIATED WHOLESALE ELECTRIC COMPANY,  
A CORPORATION**

**ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT  
OF APPEALS FOR THE NINTH CIRCUIT**

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**PETITION FOR CERTIORARI FILED AUGUST 24, 1942.**

**CERTIORARI GRANTED OCTOBER 12, 1942.**

**TRANSCRIPT OF RECORD  
IN FOUR VOLUMES**

Office, Supreme Court, U. S.  
**FILED.**

AUG 24 1942

WALTERS ELECTRIC COMPANY  
CLERK

**Supreme Court of the United States**

October Term, 1942

No. **832**

LEROY J. LEISHMAN,

Petitioner,

vs.

ASSOCIATED WHOLESALE ELECTRIC  
COMPANY, a Corporation,

Respondent.

**VOLUME I**

Pages 1 to 286

UPON PETITION FOR A WRIT OF CERTIORARI TO THE  
UNITED STATES CIRCUIT COURT OF APPEALS  
FOR THE NINTH CIRCUIT.



No. 9970

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United States  
Circuit Court of Appeals  
for the Ninth Circuit.

LeROY J. LEISHMAN,

Appellant,

vs.

ASSOCIATED WHOLESALE ELECTRIC  
COMPANY, a Corporation,

Appellee.

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Transcript of Record  
In Three Volumes

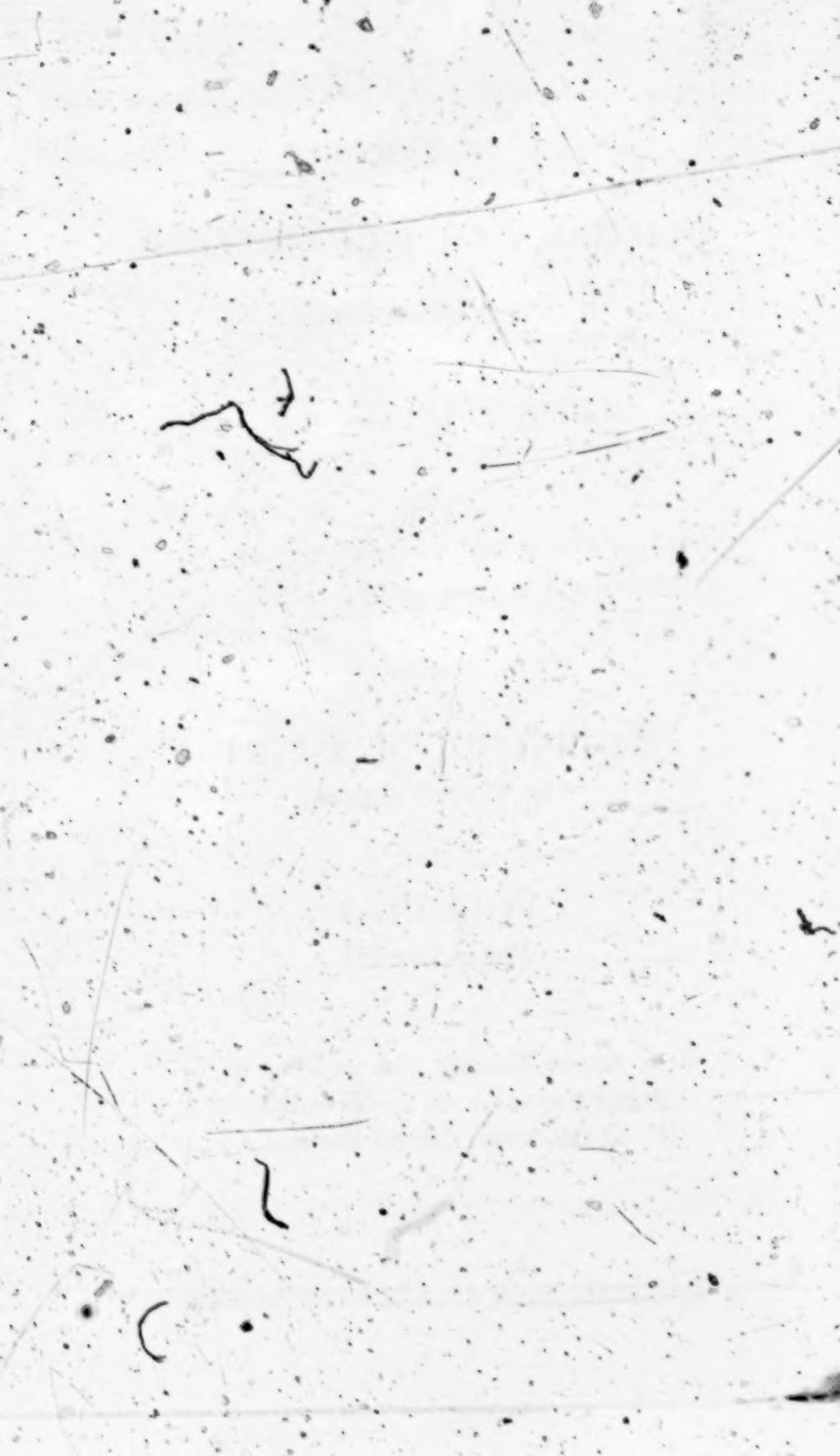
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Upon Appeal from the District Court of the  
United States for the Southern District  
of California, Central Division.



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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in italic; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in italic the two words between which the omission seems to occur.]

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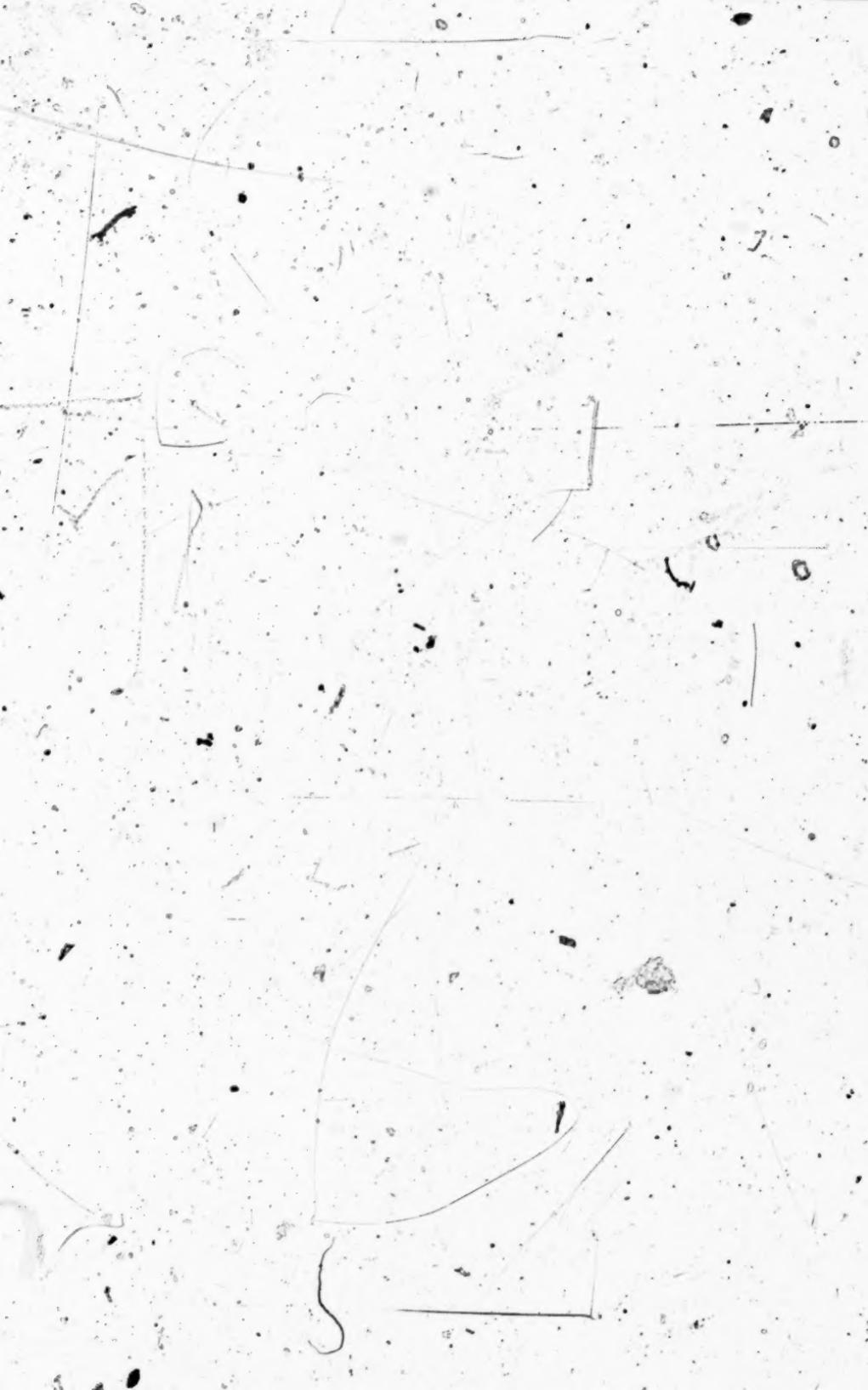
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## NAMES AND ADDRESSES OF ATTORNEYS

For Appellant:

JOHN FLAM, Esq.,  
548 So. Spring St.,  
Los Angeles, California.

For Appellee:

LEONARD S. LYON, Esq.,  
I. L. FULLER, Esq.,  
R. E. CAUGHEY, Esq.,  
FREDERICK W. LYON, Esq.,  
of Messrs. LYON & LYON,  
811 W. 7th St. Bldg.,  
Los Angeles, California. [1\*]

*LeRoy J. Leishman vs.*

In the United States District Court for the Southern District of California, Central Division

Equity No. 1463-J

**LeROY J. LEISHMAN,**

Plaintiff,

vs.

**ASSOCIATED WHOLESALE ELECTRIC  
COMPANY,**

Defendants.

**BILL OF COMPLAINT FOR INFRINGEMENT  
OF LETTERS PATENT**

To the Honorable the Judges of the District Court of the United States in and for the Southern District of California:

Plaintiff complains of the defendant and alleges:

**I. Plaintiff**

That the plaintiff is a citizen of the State of California and resides in the City of Los Angeles, California.

**II. Defendant**

That the defendant is a corporation organized under and existing by virtue of the laws of the State of California, and has a regular and established place of business in the City of Los Angeles, State of California.

### III. Jurisdiction

- (1) That the jurisdiction of this court is based upon the Patent Laws of the United States of America.
- (2) That the acts of infringement hereinafter complained of were and are being committed in the City of Los Angeles, State of California, and elsewhere within the United States.

### IV. Title to Patent

(1) On February 15, 1938, original United States Letters Patent No. 2,108,538 were duly and legally issued to plaintiff for an invention in "Means and Method for Turning Rotatable Objects to Predetermined Positions", and on August 16, 1938, [2] said Letters Patent were surrendered, and were duly and legally reissued as reissue Letters Patent No. 20,827.

(2) Plaintiff, since the date of the issuance of the original Letters Patent and until said original Letters Patent were surrendered, has been the owner of said original Letters Patent, and plaintiff, since the date when said reissue Letters Patent were granted, has been and still is the owner of said reissue Letters Patent.

### V. Infringement

That defendant has, within the last six years and prior to the filing of this Bill of Complaint, and subsequent to the date of the granting of the said reissue Letters Patent, infringed claims 5, 7, 8, 9, 10 and 11 of said reissue Letters Patent, said claim

4. *Roy J. Leishman vs.*

5 being identical with claim 5 of said original Letters Patent; and defendant threatens to continue so to infringe by selling or causing to be sold or using or causing to be used within this district and elsewhere within the United States, radio receiving sets known as Crosley sets and made in accordance with and embodying the inventions disclosed and claimed in plaintiff's said reissued Letters Patent, wilfully and without the consent of the plaintiff.

VI. Damage

That defendant has derived unlawful gains and profits from such infringement which plaintiff would otherwise have received but for such infringement, and has thereby been caused irreparable damages.

Plaintiff therefore prays:

1. For a preliminary as well as a permanent injunction restraining the defendant, its officers, agents, servants and employees from directly or indirectly making or causing to be made, selling or causing to be sold, or using or causing to be used, any means for turning rotatable objects to predetermined [3] positions, made in accordance with or embodying the inventions of the said Reissue United States Letters Patent No. 20,827, or from infringing upon or violating the said Letters Patent in any way whatsoever.
2. For the costs and an accounting of profits and damages.

3. For such other and further relief as the court may deem meet and just.

LeROY J. LEISHMAN

JOHN FLAM

Solicitor for Plaintiff

548 South Spring Street  
Los Angeles, California

United States of America,  
Southern District of California,  
Central Division,  
Los Angeles County—ss.

LeRoy J. Leishman, being duly sworn, says that he is the plaintiff in the foregoing bill of complaint; that he has read said bill and knows the contents thereof; that the bill is true to his own knowledge except as to matters therein alleged on information and belief, and as to those matters he believes it to be true.

LeROY J. LEISHMAN

Plaintiff

Sworn to before me this 10th day of September, 1938.

(Seal)

DELLAH OTEY FAWCETT  
Notary Public

[Endorsed]: Filed Sep. 12, 1938. [4]

[Title of District Court and Cause.]

### ANSWER

To the Honorable the Judges of the District Court  
of the United States in and for the Southern  
District of California:

Defendant, for answer to Plaintiff's Bill of Complaint in the above entitled cause, says:

#### I.

Defendant admits the allegations of Paragraphs I and II of the Bill of Complaint, and the jurisdiction of the Court as set forth in Paragraph III (1); but denies that any acts of infringement have been or are being committed in the city of Los Angeles, State of California, or elsewhere.

#### II.

Defendant admits that patent No. 2,108,538 was issued on Feb. 15, 1938, and subsequently reissued as No. Re. 20,827; but denies each and every other allegation of Paragraph IV (1) of the Bill of Complaint. Defendant is [5] unaware of the matters alleged in Paragraph IV (2) and puts Plaintiff to its proofs.

#### III.

Defendant denies each and every allegation of Paragraph V of the Bill of Complaint.

#### IV.

Defendant further answering avers that said letters patent in suit are invalid and void for the reason that the alleged invention thereof, attempted to be patented therein, and every material and

substantial part thereof, had long prior to the alleged invention or discovery thereof by the said LeRoy J. Leishman, or prior, or more than two years prior to the filing of the application for said original letters patent of the United States, No. 2,108,538, been patented, published, described and contained in the following identified United States and foreign letters patent and publications:

Patent No.	Inventor	Date
130,244	Robjohn	Aug. 6, 1872
496,688	Houghton	May 2, 1893
670,075	Heinitz	Mar. 19, 1901
1849,386	Pitman	Aug. 10, 1920
1560,381	Gray	Nov. 3, 1925
1608,231	Bradley	Nov. 23, 1926
1638,734	Heath	Aug. 9, 1927
1687,420	Bast	Oct. 9, 1928
1704,754	Marvin	Mar. 12, 1929
1712,181	Trenor	May 7, 1929
1846,289	Vasselli	Feb. 23, 1932
1865,704	Peek	July 5, 1932
1906,166	Schaefer	Apr. 25, 1933
1925,651	Bird	Sept. 5, 1933
1928,200	Faas	Sept. 26, 1933
1948,373	Flaherty	Feb. 20, 1934
1930,192	Cunningham	Oct. 10, 1933

[6]

	British Patent	
465,716	Freytag	Aug. 18, 1932
	Danish Patent	
49,676	Due-Petersen	Dec. 23, 1933
	German Patent	
438,696	Siemens & Halske	Dec. 28, 1926

## V.

Defendant further avers that the said letters patent in suit are invalid and void for the reason that the alleged invention thereof and all material and substantial parts thereof were known to and in public use and on sale by various persons and concerns in the United States prior to the alleged invention of said LeRoy J. Leishman, and/or more than two years prior to his original application for letters patent therefor, the persons and concerns having such knowledge, and by whom such public use and/or sale occurred, being the patentees of the United States patents listed above and their respective assignees.

## VI.

Defendant further avers that the claims of said letters patent in suit do not cover any valid or patentable invention, and that they do not cover, embody or constitute any patentable subject matter, and that they are not patentable according to the statutes and laws of the United States.

## VII.

Defendant further avers that the alleged invention described and claimed in said letters patent in suit does not amount to invention within the meaning of the patent laws in [7] view of what was well known in the mechanical and electrical arts at the time of the alleged invention, the making thereof merely involving the exercise of ordinary or mechanical skill as distinguished from the in-

ventive faculty, and that said alleged invention is wholly lacking in patentable novelty, and said letters patent in suit are therefore null and void.

### VIII.

Defendant further avers that the letters patent in suit are wholly inoperative and invalid because the description of the alleged invention as set forth in the specification of said letters patent is not in such full, clear, concise and exact terms as to enable any person skilled in the art to which it appertains to make, construct, and use the invention, and that the claims of the patent are not distinct but are nebulous, vague and indefinite, and are not properly supported by the description of the specification or the disclosure of the drawings taken either together or severally.

### IX.

Defendant further avers that for the purpose of deceiving the public, the description and specification filed by the said LeRoy J. Leishman, and upon which the letters patent in suit were issued, was made to contain less than the whole truth relative to the alleged invention disclosed and claimed therein, or more than was necessary to produce the desired result. [8].

### X.

Defendant further avers that by reason of the proceedings had by the said LeRoy J. Leishman in the United States Patent Office in connection with

the administration of his original letters patent and the re-issue here in suit, and the representations thus made, he is entituled to sue for the patent in suit against defendant.

### XI.

Defendant avers that said re-issue letters patent are null and void for the reason that defendant commenced its public use, offer for sale, and other of the structures which might be alleged to infringe said re-issue letters patent prior to the date when the application for said re-issue letters patent was made by said L. C. J. Lyndhurst, and that by reason of the intervening rights created by said public use, offer for sale and sale, said re-issue letters patent are null and void, and that if said letters patent are not null and void by reason of defendant's public use, offer for sale and sale, that the intervening rights created furnish a full and sufficient defense to any charge of infringement made by plaintiff.

### XII.

Defendant further avers that said re-issue letters patent are invalid and void for the reason that the said re-issue patent is not for the same invention covered by intended to be covered by the original letters patent thereof, and because there was no accident, inadvertence or mistake warranting [9] in the issuance of said original letters patent, in accordance with statutes of the United States.

## XIII.

Defendant denies that it has made any unlawful gains, and profits; denies that it has committed any acts of infringement; and denies that Plaintiff has suffered any damages through any acts of Defendant.

All of which defenses this Defendant is ready to meet, maintain and prove as this Honorable Court shall direct; and Defendant therefore denies the equity of the Bill, that any acts of the Defendant in the premises constitute an infringement of the patent in suit, and denies that Plaintiff is entitled to any injunction, preliminary or permanent, or to any accounting to costs, or to any recovery whatever in this suit, denies all the allegations of the Bill not herein specifically admitted, and prays that it be hence dismissed with its reasonable costs and charges in this behalf most wrongfully and unjustly sustained.

ALLEN & ALLEN

Attorneys for Defendant

LYON & LYON

LEONARD S. LYON

FREDERICK W. LYON

Of Counsel

811 West Seventh Street

Los Angeles, California

Gy P

(Endorsed) Filed Nov. 7, 1938. [10]

[Title of District Court and Cause.]

## AMENDMENT TO ANSWER

Now comes the above named defendant, Associated Wholesale Electric Company, and by leave of Court first had and obtained, hereby amends its Answer to the Bill of Complaint in the above-entitled cause by adding to paragraph IV. of its said Answer the following patents, the said Answer and paragraph to be construed as though the said patents had been originally contained therein:

Patent No.	Inventor	Date
174,508	Elwell	Mar. 7, 1876
184,346	Eason	Mar. 13, 1877
296,795	Oliver	Mar. 25, 1884
447,081	Kruse et al.	Feb. 24, 1891
484,376	Roberts	Oct. 11, 1892
500,756	Laurence	Mar. 24, 1893
505,996	Woodbridge	July 6, 1897
618,491	Woodbridge	Jan. 31, 1899
765,774	Goldberg	July 26, 1904
1,037,172	Clement	Aug. 27, 1912
1,124,105	Dyuce	Jan. 5, 1915
1,560,381	Gray	Nov. 3, 1925
1,924,278	Green	Aug. 29, 1933
2,014,558	Miller	Sept. 10, 1935
2,072,897	Marschallk	Mar. 9, 1937

[14]

ALLEN & ALLEN  
GIBSON YUNGBLUT

Attorneys for Defendant

LYON &amp; LYON

By REGINALD E. CAUGHEY

Of Counsel

GV-AM

[Endorsed]: Filed Feb. 28, 1939. [12]

[Title of District Court and Cause.]

**INTERROGATORIES PROPOUNDED BY  
PLAINTIFF PURSUANT TO RULE 33**

Now comes the plaintiff after filing his complaint and his supplemental complaint, and files the following interrogatories to the defendant, to be answered by an officer of the defendant, competent to testify on its behalf.

1. Has defendant, within six years prior to September 13, 1938, sold radio receiving sets supplied to it by Crosley Radio Corporation of Cincinnati, Ohio?
2. Did any of such sets referred to in Interrogatory 1 above, incorporate a structure for push-button tuning, substantially as illustrated and described in the document, exhibit A attached hereto?
3. If your answer to Interrogatory 2 is in the negative, explain in detail in what particulars the tuners supplied with said Crosley Radio Corporation radio sets differed from that illustrated and described in Exhibit A. [13]
16. Furnish full particulars of the structures referred to in paragraph XI of defendant's answer to the bill of complaint.
17. With regard to paragraph XI of defendant's answer to the bill of complaint herein, state when the defendant first commenced its public use, offer for sale, and sale of the structures referred to in said paragraph. [16]
25. State as accurately as possible the total num-

ber of radio receiving sets incorporating the structure referred to in paragraph XI of defendant's answer to the bill of complaint herein, that were sold by defendant for the years 1938, and for the first eleven months of the year 1939.

26. Identify the documents if any upon which you base your answer to Interrogatory No. 25. [17]

32. State whether or not Crosley Radio Corporation of Cincinnati, Ohio, is undertaking the defense of this suit.

JOHN FLAM

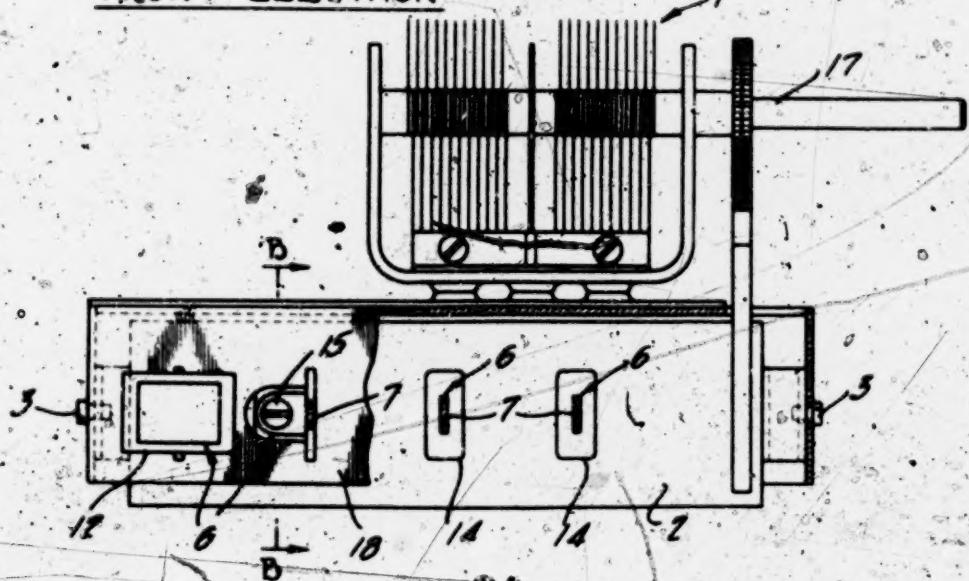
Solicitor for Plaintiff

Dated: Dec. 5, 1939.

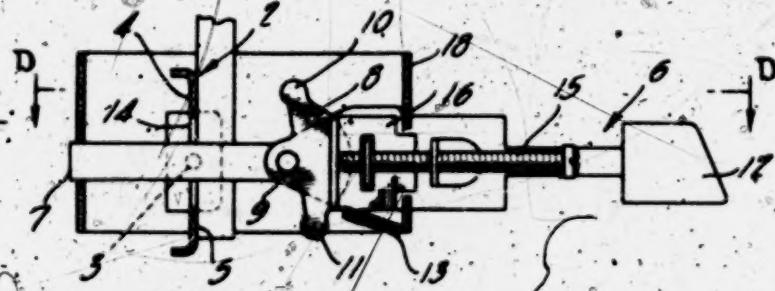
(Exhibit A) (on following page)

[Endorsed]: Filed Dec. 5, 1939. [18]

FRONT ELEVATION

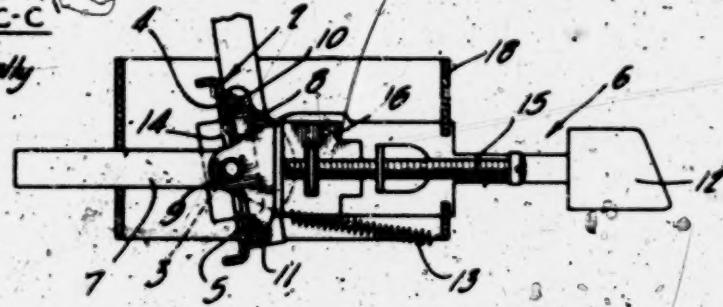


SECTION B-B

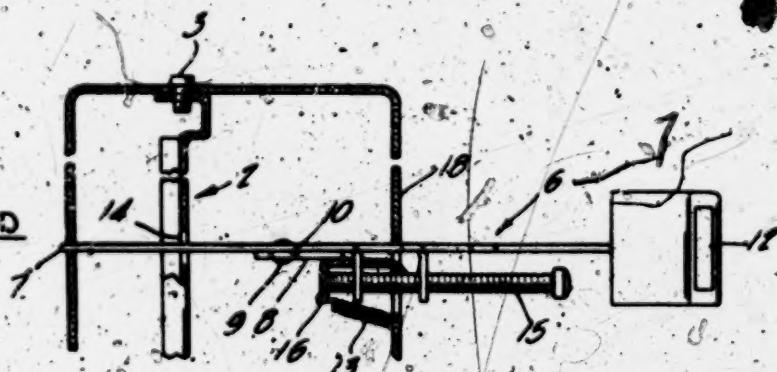


SECTION C-C

Taken on substantially the same plane as section B-B, but illustrating adjusting operation



SECTION D-D



- 1 - Radio apparatus tuning condenser
  - 2 - Rotatable rocker mounted upon a shaft 3 and operatively connected with tuning condenser 1
  - 4, 5 - Arms or shoulders of rotatable rocker 2, each extending on a different side of shaft 3
  - 6 - Manually movable operating means for rocker 2, including bar 7.
  - 8 - Positioning element in the form of a means adjustably movable about a pivot 9 carried by bar 7, this means having two ends 10 and 11, one of which engages one of the arms 4, 5 of rocker 2 when bar 7 is pushed inwardly or toward the left (See B-B) by means of push button 12. Bar 7 passes through rocker 2.
  - 13 - Spring holding operating means 6 in the inoperative position of Sec B-B.
- In section C-C, when operating means 6 is pushed to the limit of its movement, pivot 9 is substantially coaxial with rocker 2, there being a recess 14 in rocker 2 between arms 4, 5 to make this possible.
- 15 - Screw, operable from the external end of member 6 for holding positioning element 8 in adjusted position by the aid of clamp 16
- A plurality of operating means 6 is provided for rotating shaft 17 of tuning condenser 1 to a predetermined position, by any one of said means 6.
- 18 - Cover panel for the mechanism, through which screws 15 extend.

Exhibit A



## [Title of District Court and Cause.]

Now comes the defendant, by Lewis M. Crosley, Vice President of The Crosley Corporation, the company defending this action, and answers plaintiff's interrogatories not hitherto rejected by the Court, as follows:

## 1. Yes.

2 & 3. We have sent to plaintiff's counsel a radio receiver embodying the structures which we conclude from Exhibit A attached to the interrogatories to be the structure charged to infringe. This device will speak for itself.

16. The radio receiver sent to counsel for plaintiff, as above set forth, embodies the tuning structure of defendant referred to in paragraph XI of defendant's answer. [20]

17. There are two aspects to the defense of public use, offer for sale and intervening rights (a) of the nominal defendant, (b) of The Crosley Corporation, who is, as plaintiff well knows, defending this action. (See answer to interrogatory 32).

(a) As to the nominal defendant, the first date of offer for sale is about February 21, 1938, continuing therefrom to date.

(b) As to the Crosley Corporation, on about January 27, 1938 an automobile receiver containing the challenged push button tuner was first shipped. The push button tuning device employed in said automobile receiver and like that embodied in the receiver shipped to plaintiff's counsel, was later

embodied in other models of household and automobile receivers of which the first of the additional models was shipped to dealers on about May 17, 1938.

25. The receiving sets shipped by The Crosley Corporation to Associated Wholesale Electric Co. in 1938 and the first eleven months of 1939 were 2002 in number. It is believed that these receivers were substantially all of them sold during said period.

As to The Crosley Corporation, some five thousand automobile receivers containing the challenged tuner were shipped previous to a study of plaintiff's original patent, later reissued. After study of said patent The Crosley Corporation sold 150538 receivers of various types containing said challenged tuners in 1938 and 67656 receivers also containing the same tuners in the first eleven months of 1939.

[24]

26. The sales records and production reports of The Crosley Corporation.

32. Yes

 LEWIS M. CROSLEY

Vice Pres.

State of Ohio

County of Hamilton ss.

Lewis M. Crosley being first duly sworn deposes and says that he is Vice-President of Crosley Corporation, that he is familiar with the facts relating to the foregoing answers to interrogatories and that

the said answers are true to the best of his knowledge and belief.

LEWIS M. CROSLEY

Sworn to and subscribed before me, a Notary Public in and for said county this 19th day of February, 1940.

(Seal)

WALTER A. AIKEN

Notary Public, Hamilton County, Ohio, 3401 Colerain Ave. Cincinnati, Ohio.

My Commission Expires Feb. 13, 1943.

[Endorsed]: Filed Feb. 23, 1940. [22]

[Title of District Court and Cause.]

OPINION

This is an action for infringement of reissue patent No. 20,827, issued August 16, 1938, upon application dated May 23, 1938. The original patent, under No. 2,108,538, was issued February 15, 1938. Claims 7, 8, 9, 10 and 11 only are involved.

The principal defenses are invalidity, lack of infringement and intervening rights.

The Crosley Corporation of Cincinnati, Ohio, the manufacturer of the accused device, has assumed the defense of this action.

The reissue patent is a device for the manual operation of a tuning mechanism for a radio receiving set and is designated in the patent as "Means and Method for Turning Rotatable Objects to Predetermined Positions". The original patent con-

sisted of 6 claims, only one of which pertained to a radio tuning device. The reissue patent in suit contains 12 claims. Heretofore, plaintiff has disclaimed claim 5 in its entirety and filed qualifying disclaimers involving claims 8, 9 and 10. The patent in suit covers a device not only for the automatic setting of a dial of a radio receiving set, but also for the simultaneous setting of both a radio and television receiving set by one operation. In this case we are only concerned with the device in so far as it applies solely to a radio receiving set. [23]

Prior to the patent of plaintiff, the industry had used but two different manually operated devices for the tuning of a radio set by automatic means. Originally, the Zenith Radio used a device patented by J. M. Schaefer, under patent No. 1,906,106, issued April 25, 1933, but after a couple of years' use it was discarded. At the time the original patent was issued to plaintiff, the radio industry was using what was known as "Telephone Dial Type" tuning device. This type was considered by the industry as a makeshift.

The physical part of the patent consists of a rocker and an adjustable tappet. The rocker rotates on a shaft that is connected with the hand of the dial of a radio and as it rotates it moves the hand of the dial to a predetermined station. The rocker is moved from one position to another by the movement of the tappet, which is brought into contact with the rocker by a cash register type lever. Through adjustable means the tappet is set so that

it will revolve the rocker to a predetermined position, which in turn will move the hand of the dial to a predetermined point on the dial of the radio. There is a recess in the rocker which enables the axis of the tappet to become coaxial with the axis of the rocker. The combination of the rocker with an adjustable tappet, which are coaxial when completely engaged represents, if any, the patentable features of the claims involved.

The evidence in this case discloses that the Crosley Corporation, in the later part of 1936 or the early part of 1937, requested its engineering department to design a push button type tuner but up until August 1938, such a tuner had not been developed. The advertisements carried by the corporation in the fall of 1937, still carried the "Telephone Dial Type" tuner as a feature of its radio products.

In August and September 1937, plaintiff conferred with certain officials of the Crosley Corporation and attempted to interest them in a patent he had on a different type of tuner [24] represented by Patent No. 2,084,851, but the negotiations came to naught.

In the fall of 1937, the engineering department of the Crosley Corporation developed independently the accused tuning device. The plaintiff contends that its tuner was borrowed from his invention but I have been unable to find anything in the record that justifies this contention. In fact, the plaintiff testified in substance to the effect that he made no disclosures of the device in suit to the Crosley Cor-

patent until after its tuner was on the market. The file wrapper of Patent No. 2,084,851 discloses drawings of the patent-in-suit and plaintiff insists that the "independent discovery" of the Crosby Corporation was obtained from this file wrapper, but there is no evidence to this effect; in fact, the evidence is to the contrary. Such appropriation cannot be inferred from such circumstances. They tend against the presence of invention. (American Chain Co., Inc., v. Cox Brass Mfg. Co., 292 Fed. 624.)

The accused device met all the requirements of the industry. It was simple, compact and inexpensive to manufacture. The tuning device described in plaintiff's patent was a bulky piece of mechanism like the much cruder type of tuner used on the operating means, while the accused device used a push button or plunger as the operating means. But it cannot be seriously denied that the accused device uses the rotatable rocker, adjustable tappet and when brought in contact the two parts ~~are~~ <sup>form</sup> coact—the essential elements contained in the plaintiff's structure.

Defendant states that the patent of the plaintiff fails to demonstrate inventive genius. In discussing this feature of the litigation I am appreciative of the fact that there is no method by which a court can determine the exact point at which mechanical skill rises to the dignity of inventive genius. It is dependent upon the judgment of the court before whom the case is being heard, and [25] as a case passes through different courts on its route to fi-

sality, different minds react differently upon the same set of facts. (*McClain v. Ortmayer*, 141 U.S. 119; *Automatic Draft & Stove Co., Inc., v. Auto Stove Works*, 34 Fed. Supp. 472.)

The plaintiff vigorously contends that the case at bar presents an ideal setting for an invention. All the customary features are present; a demand existing over a long period of time; experiments seeking to fill it; eventual success and wide acceptance by the industry. He further insists that this invention comes clearly within the purview of the landmark case of *Eibel Process Company v. Minnesota & Ontario Paper Company*, 261 U.S. 45. See also (*Johnson Co., Inc., v. Philad Co. et al.*, 96 Fed. (2d) 442). Clearly, if plaintiff's contentions are correct, we would be faced with evidence of invention. It will therefore be necessary to analyze his contentions and examine each one in detail in order that proper consideration may be given this evidence. The question whether mechanical skill or inventive genius is involved is a question of fact. (*Thomson Spot Welder Co. v. Ford Motor Co.*, 265 U.S. 445.)

Plaintiff's first premise is that there has been a demand in the industry for a long period of time for a successful tuner. The facts in this case do not indicate an appreciable demand for a tuner until about the fall of 1936. The Schaefer patent No. 1,906,106, was issued in 1933 and the Flaherty patent No. 1,948,373 in 1934. The evidence reveals no other issued patents until 1937 and 1938 when the plaintiff obtained two patents. The record discloses that

there was a tuner electrically controlled and the "Telephone Dial Type" tuner in limited use at the time of the issuance of the patent of which the re-issue is an off shoot.

When one examines the various decisions that use the expression "a long period of time", generally speaking the facts will reflect a period of several years. In Eibel Process Company v. Minnesota & Ontario Paper Co., *supra*, the demand existed for [26] years. In Gilbert Spruance Co. v. Ellis-Foster Co., 114 F. (2d) 771, a forward step had been sought from 1919 to 1936; Washburn & Moen Mfg. Co. et al. v. Beat 'Em All Barbed-Wire Co. et al., 143 U.S. 275, at least six years; Kelley v. Coe, 99 Fed. (2d) 435, thirty years; Webster Loom Co. v. Higgins, 105 U. S. 580, for years. When the time element is considered as evidence of invention, naturally greater weight will be given where a demand has existed in a particular field for many years, than where the demand has existed for a comparatively short time. The shorter the time, the weaker does this evidence become.

The demand for an automatic tuning device did not become acute in the radio industry until the later part of 1936 or the early part of 1937. This is demonstrated in many ways. The record discloses a dearth of inventions in this field. The plaintiff's original patent was primarily for a simultaneous tuning device for a radio and television receiving set, evidenced by the fact that but one claim out of six applied solely to radio tuning. But the

strongest evidence comes from the lips of the plaintiff when he testified, in response to an inquiry by the court, that the development in the radio industry itself made it feasible to use an automatic tuner that they could not use before. He further testified that the "automatic frequency control circuits were developed about this time by means of which, if you got a receiver almost in tune, this circuit would pull it in tune; some manufacturers referred to that type of tuning as magnetic tuning because it would pull it right in tune."

Thus it will seem that instead of a demand over a long period of time, as a matter of fact the industry had not been developed to the point where an actual and existing demand had been created. It seems to me that it was a case of one step following another. One improvement calling for another. (N. Y. Scaffolding Co. v. Chain Belt Co., 254 U. S. [27])

Under plaintiff's second premise, the evidence discloses that the Crosley Corporation was experimenting for less than a year endeavoring to develop a simple, compact, inexpensive tuner, and after a lapse of time developed the accused device as hereinbefore related, which fact in itself tends to negative invention. (Rubeb Condenser Co. v. Copeland Refrigeration Corporation, 85 F. (2d) 537).

The third premise is eventual success and wide acceptance by the industry. The evidence discloses that licensees of plaintiff have manufactured about 50,000 sets of tuners. The Crosley Corporation has

placed several hundred thousand upon the market. The device has proven a success and has received wide acceptance. The plaintiff claims this commercial success is due to his invention, the Crosley Corporation maintains it pioneered this style of tuner and created the present existing demand. The Crosley Corporation was the first to place this type of tuner on the market and unquestionably created the demand. While, as I have stated before, it contained plaintiff's combination, the adoption of the push button or plunger means of operation was one of the primary factors of its success, because only through this means of operation was it possible to construct a device that has the required compactness—a definite requirement of the industry. Commercial success is not necessarily established by evidence of devices built under licensing agreements. (*Ruben Condenser Co. v. Copeland Refrigeration Corp.*, *supra*.)

With this background, coupled with the presumption of validity, I shall consider the advancement over the prior art made by the plaintiff and examine closely the elements that enter into plaintiff's patent. As stated before the combination consists of a rocker and tappet. Insofar as the rocker and tappet are concerned, both were fully anticipated in the Marschalk patent (No. 2,072,897, issued March 9, 1937). Plaintiff admitted that after his patent had been issued he learned of the Marschalk patent and then realized [28] his rocker and tappet were fully covered in the earlier patent and

this fact was the motivating reason for his disclaimer of claim 5 of the reissue patent. Claim 5 of the reissue patent is identical with claim 5 of the original patent and this is undoubtedly the reason the plaintiff hesitated to base an infringement suit on the original patent, but preferred to withhold action until the issuance of the reissue patent in suit.

Rockers and tappets are also used in the Woodbridge patent (No. 585,996, issued July 6, 1897) and in the Miller patent (No. 2,014,358, issued September 10, 1935). Consequently, if the patent in suit rises to the dignity of an invention it must depend upon the adding to this former combination the coaxial relationship when the two parts are completely engaged. In this respect, I have not lost sight of the fact that plaintiff's patent does not consist of three separate elements, but all three combined. (Leeds & Catlin Co. v. Victor Talking Machine Co., 29 Sup. Ct. Rep. 495.)

Therefore, in order to properly appraise plaintiff's patent it is necessary to ascertain the part this coaxial relationship plays in the plaintiff's combination. Cash registers use a rocker and tappet as demonstrated by the Woodbridge and Miller patents but do not rely upon the coaxial relationship. Why? Because when the machines are built, the manufacturer knows the various amounts that it is going to be necessary for the user to ring up, consequently, he governs the position of the rocker by the shape of the tappet that engages it. But in the radio industry the manufacturer cannot pre-

determine the stations in the various territories that are usable nor can he predetermine the idiosyncrasies of the ultimate user. As a result any radio tuning device must be easily and accurately adjusted in the home of the purchaser. Inasmuch as the movement of the rocker is controlled by the angle that the tappet is set when the two become completely engaged it is necessary to be able to easily adjust the position of the tappet. [29] Therefore, the problem before any person desiring to adapt a rocker and tappet to a radio tuning device was to develop a means for an accurate and simple method of adjusting the tappet so that it would, when in complete engagement with the rocker, rotate it to the angle required to bring in the particular station that the user might designate. Did this require mere mechanical skill or call into being inventive genius? As heretofore mentioned the plaintiff at the time of the filing of his application for patent honestly believed that he had invented the rocker and tappet, but later ascertained that the life of his patent must depend for its sustenance upon the combination of these two elements with the coaxial relationship when completely engaged. However, he was charged with such knowledge. (Walker on Patents, Deller Ed. Vol. 1, p. 118.)

The fact that the original claim No. 5 made no claim to coaxial relationship and much stress placed thereon in the reissue patent, and that the reissue was not applied for until after plaintiff examined the accused device and became aware of the Mars-

chalk patent, tend to lead one into the belief, that the coaxial relationship was an afterthought, brought into being to save his patent from the defense of anticipation.

The coaxial relationship is only important as a means of insuring accuracy at the time of the adjustment of the tappet. It is of importance in that respect for the reason that when the rocker is turned to the proper position for the bringing in of the desired station, the loosened tappet when brought into engagement with the rocker may be set in proper position by the adjustable means, free from any play. Any play would result in inaccuracies that would destroy the effectiveness of the device. The mechanical problem therefore was to ascertain a means for the accurate and simple adjustment of the tappet. The evidence clearly discloses that the mechanical department of the Crosley Corporation had little trouble in solving this particular problem when it decided upon the use of the rocker and tappet combination. The Marschalk patent used an [30] adjustable means for the adjusting of the tappet, and with this patent as a guide, the problem before a machine designer would be to develop an improvement in the adjusting means; "Ordinarily there is no invention in making parts of a machine adjustable." Amdur Patent Law & Practice, P. 148, Par. 57. The adjustable means used by the plaintiff was similar to Schaefer's and the coaxial feature was used solely to prevent play at the time of adjustment.

Coaxial, simply means on-center and is some times referred to as concentrical or symmetrical. The importance of the mechanical relationship is well-known in the art and a feature that must be considered in all machine designing when you desire parts to move together harmoniously and free from friction. The same principle is used in the crank shaft of any automobile. It is a mechanical principle that is hundreds of years old. Both the experts of the plaintiff and the defendant agree in this respect. The plaintiff's expert Leslie K. Loehr, testified as follows:

Q. Whenever you have two members that you want to turn together in the same orbit or to maintain contact with each other as they are turning together, you know that they should be on-center, isn't that correct?

A. Well, they may be coacting in such a way that the resultant would be a center.

Q. The resultant; either they are actually on-center or the resultant amounts to the same thing; isn't that correct?

A. Yes; so they will function together.

Q. In other words, this matter of putting these members on-center is one of the common tools and one of the common experiences of a machine designer?

A. Yes. If you have reference to machine elements in a machine; yes.

It is common knowledge that the front wheels of an automobile must both rotate on a common axis,

or in other words must be coaxial. This relationship is demonstrated in the Cunningham patent (No. 1,930,192, issued October 10, 1933).

The plaintiff lays stress on the fact that the rocker has recesses in it. The evidence discloses that the mechanical department [31] of the Crosley Corporation was instructed to design a push button type tuner. And when it decided to use the tappet and rocker method, it seems to me that it would have been very difficult to use a push button or plunger that would not have to pass through the rocker, when the rocker and tappet were brought into full engagement. It was the natural thing to do and in so doing the parts became coaxial. I believe the coaxial feature was the result of the use of mechanical skill and that the patent in suit is not the result of the application of inventive genius. (Wilson-Western Sporting Goods Co. v. Barnhart, 81 Fed. (2d) 108, Bailey v. Sears, Roebuck & Co., 115 Fed. (2d) 904). In my opinion this case comes clearly within the rule laid down in Atlantic Works v. Brady, 107 U. S. 192, wherein it was said:

"The process of development in manufactures creates a constant demand for new appliances, which the skill of ordinary head-workmen and engineers is generally adequate to devise, and which, indeed, are the natural and proper outgrowth of such development. Each step forward prepares the way for the next, and each is usually taken by spontaneous trials and attempts in a hundred different places. To grant a single party a monopoly of every slight ad-

vancee made, except where the exercise of invention somewhat above ordinary mechanical or engineering skill is distinctly shown, is unjust in principle and injurious in its consequences.

"The design of the patent laws is to reward those who make some substantial discovery or invention, which adds to our knowledge and makes a step in advance in the useful arts. Such inventors are worthy of all favor. It was never the object of those laws to grant a monopoly for every trifling device; every shadow of a shade of an idea, which would naturally and spontaneously occur to any skilful mechanie or operator in the ordinary progress of manufactures."

(Risdon Iron & Locomotive Works v. Medart, 158 U.S. 68; Scott & Williams, Inc. v. Hemphill Mfg. Co., 247 Fed. 540; Honolulu Oil Corp. v. Halliburton, 306 U. S. 550; United States Hoffman Machinery Corp. v. Cummings-Landeau Machinery Co., 113 F. (2d) 424.)

I therefore hold claims 7, 8, 9, 10 and 11 of the reissue [32] patent invalid, consequently, it becomes unnecessary to consider the other defenses raised by the defendant. Defendant will prepare findings in conformity with this opinion.

Dated: January 29, 1941.

BEN HARRISON,

Judge

[Endorsed]: Filed Jan. 31, 1941. [33]

[Title of District Court and Cause.]

## FINDINGS OF FACT AND CONCLUSIONS OF LAW.

This Cause coming on for trial upon the merits, and evidence having been introduced and the cause having been submitted to the Court, and the Court having rendered its decision herein, Now Therefore, the Court makes the following Findings of Fact and Conclusions of Law:

### FINDINGS OF FACT.

- (1) The plaintiff, LeRoy J. Leishman, is a citizen of the United States and is the owner of Letters Patent Reissue No. 20,827, to the extent which gives him the right to bring suit for the infringement thereof.
- (2) The defendant, Associated Wholesale Electric Company, is a corporation organized under the laws of the State of California, and has its principal place of business at Los Angeles, California.
- (3) The Crosley Corporation, a corporation of Ohio, having its principal place of business at Cincinnati, Ohio, is the manufacturer of the accused devices, and assumed the defense of this action against the defendant who was a distributor of its products. [35]
- (4) The original patent No. 2,108,538 relates to a device for the manual operation of tuning mechanisms, and discloses means for the simultaneous actuation of two tuning mechanisms for two radio sets, one being for sound, the other for

television. The original patent contained six claims only, one of which, viz., Claim 5, pertained to a tuning device for a single radio receiver. The re-issue patent contains twelve claims. Plaintiff has disclaimed Claim 5 in its entirety and has filed qualifying disclaimers involving Claims 8, 9 and 10:

(5) Claims 7, 8, 9, 10 and 11 only of the patent in suit are involved in this action.

(6) ~~The physical parts of the apparatus claimed in the claims in suit consist of a rocker connected with a mechanism to be tuned, and an adjustable tappet, mounted on a manual means for moving it, whereby the tappet is brought against the rocker to move the rocker to a position predetermined by the adjustment of the tappet. There is a recess in the rocker which enables the axis of the tappet to become co-axial with the axis of the rocker when the two are completely engaged.~~

(7) In August and September, 1937 plaintiff conferred with certain officials of The Crosley Corporation, and attempted to interest them in patent No. 2,084,851, but was unsuccessful. This patent No. 2,084,851 did not cover or disclose the type of tuning device disclosed and covered by the patent in suit.

(8) In the Fall of 1937, the Engineering Department of The Crosley Corporation developed independently the accused tuning device. No disclosures of the structure of the patent in suit were made to The Crosley Corporation by plaintiff prior to the completion by The Crosley Corporation; nor

did The Crosley, [36] Corporation know of the Leishman structure or patent in suit until after the completion of the said development.

(9) The accused device met all the requirements of the industry, being simple, compact and inexpensive to manufacture, and employing a push button or plunger as the manual operating means. The tuning device described in plaintiff's patent was a bulky piece of mechanism of the cash register type, employing a lever as the manual operating means.

(10) The accused device employs a rotatable rocker and an adjustable tappet; and when these parts are in complete engagement they are substantially coaxial.

(11) Tuning devices of the cash register type for radio sets, as exemplified by the Schaefer patent No. 1,906,106, and the Flaherty patent No. 1,948,373 were in existence prior to the development by plaintiff of the structure disclosed and claimed in the patent in suit.

(12) At the time plaintiff developed the structure of his patent in suit, and at the time the original of the patent in suit was issued, there had been no unsatisfied demand for a long period of time for a radio tuning device of the character to which the patent in suit relates.

(13) The device of the patent in suit has not met with commercial success or acceptance by the industry. The specific structure disclosed by the patent in suit has not been manufactured and sold.

The Crosley device has proved a success and has received wide acceptance. [3]

(14) The Crosley Corporation was the first to place on the market a tuner of the accused type. The adoption of the push button or plunger means of operation was one of the primary factors of the success of the Crosley device. The work of The Crosley Corporation created the demand for tuners of the accused type.

(15) The combination of a rocker and tappet in a radio tuner is found in the Marshalk patent No. 2,072,867. Plaintiff disclaimed Claim 5 of the reissue patent in suit because of the Marshalk patent. Rockers and tappets are also shown in Woodbridge patent No. 585,996 and in Miller patent No. 2,014,258.

(16) Tappet adjustability in a radio tuner is required to permit setting the device for tuning such radio stations as the user may desire. The coaxial relationship is important only as a means of insuring accuracy at the time of the adjustment of the tappet.

(17) The reissue patent in suit was not applied for until after plaintiff examined the accused device and became aware of the Marshalk patent.

(18) The coaxial relation between the tappet and the rocker was not the invention intended to be secured in the original patent No. 2,108,538. The coaxial relationship was not claimed in the original patent, and is an afterthought in the reissue patent in suit brought into being to save the patent from the defense of anticipation.

(19) The adjustable means used by plaintiff was similar to that in Schaefer's patent No. 1,906,106, and the coaxial feature was used to prevent play at the time of adjustment. [38]

(20) Coaxility, which simply means being on-centers, is a mechanical principle hundreds of years old and must be considered in all machine designing when parts are to rotate together.

(21) Coaxiality is shown in the Cunningham patent No. 1,930,192.

(22) Coaxiality is old in the art, and the coaxial feature of the patent sued upon is the result of the use of mechanical skill.

(23) Claims 7, 8, 9, 10 and 11 of the reissue patent No. 20,827 do not embody any invention over the prior art.

#### CONCLUSIONS OF LAW.

(1) Claims 7, 8, 9, 10 and 11 of the reissue letters patent No. 20,827 are invalid for want of invention.

(2) The complaint herein should be dismissed with costs to the defendant.

(3) A final decree should be entered herein, in accordance herewith.

Dated: May 1, 1941.

BEN HARRISON

Judge.

[Endorsed]: Filed May 1, 1941, R. S. Zimmerman,  
Clerk. By Murray E. Wire, Deputy Clerk. [39] O

In the United States District Court, Southern  
District of California, Central Division.

In Equity No. 1463-BH.

LEROY J. LEISHMAN,

Plaintiff,

vs.

ASSOCIATED WHOLESALE ELECTRIC  
COMPANY,

Defendant.

#### FINAL JUDGMENT.

This cause having come on for trial upon the merits, and evidence having been introduced and the cause having been submitted to the Court, and the Court having rendered its decision herein and having made and entered its Findings of Fact and Conclusions of Law herein pursuant to Rule 52 (a) of Rules of Civil Procedure, and being fully advised in the premises, upon consideration thereof,

I: Is Hereby Ordered, Adjudged and Decreed as follows:

- (1) That claims 7, 8, 9, ~~10~~ and 11 of Reissue Letters Patent No. 20,827, in suit, are invalid for want of invention.
- (2) That the complaint herein be and the same is hereby dismissed.
- (3) That the defendant have judgment against the plaintiff, LeRoy J. Leishman, for its necessary costs and disbursements incurred herein, including the court reporters' fees and per diems and the

cost of the Court's copy of the transcript of record, all in the sum of \$412.70, to be taxed by the Clerk.

Dated this 1st day of May, 1941.

BEN HARRISON,  
Judge. [40]

Pursuant to Rule 8 of this Court, the foregoing Final Judgment is approved as to form this day of March, 1941.

Attorney for Plaintiff.

Due receipt of a copy of the within is hereby admitted this 28th day of March, 1941—4 P. M.

JOHN FLAM,

Atty. for Plaintiff.

[Endorsed]: Filed May 1, 1941. R. S. Zimmerman, Clerk. By Murray E. Wire, Deputy Clerk.

Judgment Entered May 1, 1941.

Docketed May 1, 1941.

Book C.O. No. 5, Page 412.

R. S. ZIMMERMAN,  
Clerk.

By MURRAY E. WIRE,  
Deputy. [41]

[Title of District Court and Cause.]

**ORDER FOR ENLARGEMENT OF TIME  
UNDER RULE 6b OF FEDERAL RULES  
OF CIVIL PROCEDURE.**

On motion of John Flam, Esq., attorney for the plaintiff, and upon a verified showing, it is hereby ordered that in the event entry of judgment be made herein prior to May 21, 1941, the time be enlarged during which a motion may be filed under Rule 52b, to and including May 31, 1941.

This order shall be effective only in the event that the said entry of judgment be made herein prior to May 21, 1941; and in the event that such an entry of judgment be made after May 21, 1941, then the ten day period specified in Rule 52b shall be effective unless otherwise ordered.

Dated this 28th day of April, 1941.

**BEN HARRISON,  
Judge.**

The above order is consented to.

**LYON & LYON,  
LEONARD S. LYON**

Attorneys for Defendant. [42]

[Title of District Court and Cause.]

**AFFIDAVIT OF JOHN FLAM.**

State of California

County of Los Angeles—ss.

John Flam, being first duly sworn, deposes and says: I am the attorney representing the plaintiff in the above entitled case.

The findings of fact and conclusions of law are now in the process of settlement.

Under Rule 52b it is necessary, unless the time be enlarged, to file a motion to amend these findings or to amend the judgment, not later than ten days after entry of judgment.

I am about to leave for an extended Eastern trip and it is not likely that I shall be back at my office in Los Angeles earlier than about the middle of May. This trip includes a stay in Washington, D. C., and the attending of business matters in Pittsburgh, Pennsylvania and Milwaukee, Wisconsin. There is also a likelihood that I shall have to attend the taking of depositions of several witnesses in Kansas City, Missouri, and Denver, Colorado, in the interval between May 15, and May 18, 1941. [43]

The case, as the Court undoubtedly appreciates, is one which presents some legal complexities, and it would be impossible to take care of a motion under Rule 52b while I am out of town.

JOHN FLAM.

Subscribed and sworn to before me this 25th day of April, 1941.

(Seal) EDWARD FLAM,  
Notary Public in and for the County of Los Angeles,  
State of California.

[Endorsed]: (Order and Affidavit) Filed April  
28, 1941, [44]

[Title of District Court and Cause.]

**NOTICE OF HEARING ON MOTION UNDER  
RULE 52(b) OF THE RULES OF CIVIL  
PROCEDURE FOR THE DISTRICT  
COURT OF THE UNITED STATES.**

To: Associated Wholesale Electric Company and  
to Lyon & Lyon, its attorneys:

Please Take Notice that on Monday, the 9th day  
of June, 1941, at the hour of 10 o'clock A. M., or  
as soon thereafter as counsel can be heard, in the  
court room of the Hon. Ben Harrison, Judge of  
the District Court, in the Postoffice and Federal  
Building at Los Angeles, California, the plaintiff  
will call up the hearing on his motion to amend the  
findings under Rule 52 (b).

Dated this 28th day of May, 1941.

**JOHN FLAM,**

Attorney for Plaintiff. [45]

[Title of District Court and Cause.]

**MOTION UNDER RULE 52b OF THE  
RULES OF CIVIL PROCEDURE FOR THE  
DISTRICT COURT OF THE  
UNITED STATES.**

Now Comes the Plaintiff, LeRoy J. Leishman,  
and moves that the findings heretofore filed herein,  
be amended and supplemented in the following  
particulars:

1. Finding 7 should be amended to read as follows:

"(7) In August and September, 1937, plaintiff conferred with certain officials of The Crosley Corporation, and attempted to interest them in a tuner in which the rotatable member was positioned by two-point contact on opposite sides of its rotational axis, and which was covered by a pending patent and one claim of issued patent No. 2,084,851; but he was unsuccessful in licensing them."

2. Finding 8 should be amended to read as follows:

"(8) The fact that plaintiff developed the coaxial rocker and tappet combination—the heart of the accused structure—before December 15, 1934, the date of filing of the parent application that issued on June 22, 1937, creates a situation in which The Crosley Corporation is charged with a knowledge of this device; the Crosley Corporation did not develop it independently [46] in the Fall of 1937."

3. Finding 9 should be amended to read as follows:

"(9) The tuning device described in plaintiff's patent employs a lever as the manual operating means, but the accused device employing a push button or plunger as a manually operating means is the equivalent of the operating means disclosed in the reissue patent."

4. Finding 12 should be amended as follows:

"(12) The case at bar presents an ideal setting for an invention. All the customary features are present; a demand existing over a long period of time; experiments seeking to fill it; eventual success and wide acceptance by the industry. Clearly we are faced with evidence of invention."

5. Finding 13 should be amended as follows:

"(13) Licensees of plaintiff have manufactured about 50,000 sets of tuners. The Crosley Corporation has placed several hundred thousand upon the market; and a total of more than two million tuners embodying plaintiff's coaxial tappet and rocker have been sold, displacing the makeshift telephone dial tuner previously used by the industry."

6. Finding 14 should be amended to read as follows:

"(14) The Crosley Corporation was the first to place on the market a tuner of the accused type. As plungers were old and not required for compactness, the primary factor in the success of this tuner must be considered to be the fact that it contained plaintiff's combination."

7. Finding 18 should be amended to read as follows:

"(18) The coaxial relationship between the tappet and the rocker was stressed in the speci-

fication, the drawings [47] and the claims of the original patent. It was shown in the drawings of the parent application and structurally specified in claims 7 and 8 of the parent application as originally filed in 1934, these claims being identical to original and reissue claims 1 and 2, which include structural features defined by defendant's expert as necessary "to obtain this coaxiality."

8. Finding 19 should be amended to read as follows:

"(19) The adjustable means of the plaintiff was similar to that in Schaefer patent No. 1,906,106, and the coaxial feature was used by the plaintiff to prevent angular displacement of the tappet and rocker at the time of adjustment."

9. Findings 20. to 23 inclusive should be amended to read as follows:

"(20) Defendant has advanced nothing to show that coaxiality was ever used for any similar purpose before plaintiff made his invention.

"(21) Defendant has failed to show that the forward step in the art taken by the plaintiff would have been obvious to any skilled worker in the art; and the failure of Marschalk to take this step, is strong evidence that this step was not obvious. Whatever is shown

in Cunningham patent 1,930,192 is of no pertinence.

"(22) Defendant has failed to carry the heavy burden of proof required to overcome the *prima facie* evidence of the validity of the patent. Plaintiff's combination is not the result of the use of mere mechanical skill.

"(23) Claims 7, 8, 9, 10 and 11 of the reissue [48] patent No. 20,827 define invention over the prior art.

10. In addition, the following supplemental findings should be made:

(24) The accused device exemplified by plaintiff's Exhibit 10 is an infringement of the reissued patent No. 20,827.

(25) The reissue Letters Patent No. 20,827 is for the same invention as original Letters Patent No. 2,108,538 and is therefore a valid reissue.

(26) The disclaimers, filed in connection with claims 8, 9 and 10 are valid.

(27) The reissue patent No. 20,827 is narrowing one and defendant has no intervening rights.

Consistently with these findings, the conclusions of law should be amended, to state that the claim 7, 8, 9, 10 and 11 of reissue letters patent No. 20,827 in suit, are valid; that an injunction shall issue in the usual form, and that there be an accounting for past infringement.

The reasons upon which these proposed amendments and supplemental findings are based are set forth in full in the accompanying memorandum.

JOHN FLAM,

Attorney for Plaintiff.

[Endorsed]: (Motion and Notice): Filed May 28, 1941. [49].

At a stated term, to wit: The February Term, A. D. 1941, of the District Court of the United States of America, within and for the Central Division of the Southern District of California, held at the Court Room thereof, in the City of Los Angeles on Monday, the 9th day of June, in the year of our Lord one thousand nine hundred and forty-one:

Present:

The Honorable: Benjamin Harrison, District Judge.

[Title of Cause.]

This cause coming on for hearing motion of the plaintiff under Rule 52(b) of the Rules of Civil Procedure, to amend and supplement the Findings heretofore filed herein, pursuant to motion and notice, filed May 28, 1941; John Flam, Esq., appearing as counsel for the plaintiff; I. L. Fuller, Esq., appearing as counsel for the defendant:

Statements are made by respective counsels appearing, and the Court orders said motion of the plaintiff denied.

*Leroy J. Leishman vs.*

[Title of District Court and Cause.]

**NOTICE OF APPEAL TO CIRCUIT COURT  
OF APPEALS UNDER RULE 73(b)**

Notice is hereby given that Leroy J. Leishman, the plaintiff above named, hereby appeals to the Circuit Court of Appeals for the Ninth Circuit from the final judgment entered in this action on May 1, 1941; and in view of the denial on June 9, 1941, of the motion of plaintiff, Leroy J. Leishman, under Rule 52(b) of the Rules of Civil Procedure for the District Court of the United States.

**JOHN FLAIG**

Attorney for Appellant

Address: 548 S. Spring Street  
Los Angeles, California.

[Endorsed]: Filed Sep. 4, 1941.

Copy mailed to Attys. for defendant 9/5/41

E. L. S. [51]

[Title of District Court and Cause.]

**TENDER OF CASH DEPOSIT IN LIEU  
OF BOND ON APPEAL**

The Plaintiff, Leroy J. Leishman, having appealed from the decree of this Court entered on the 1st day of May, 1941, to the United States Circuit Court of Appeals for the Ninth Circuit, now tenders to the Court the sum of Two Hundred Fifty (\$250.00) Dollars, to be deposited on his behalf with

the Clerk of said District Court, subject to the orders of the Court, as security that the said appellant shall prosecute his appeal to effect; and that said appellant shall pay all costs if the appeal is dismissed or the judgment affirmed, or of such costs as the Appellate Court may award if the judgment is modified.

Dated at Los Angeles, California, this 4th day of September, 1941.

JOHN FLAM,

Solicitor and agent for plaintiff, Leroy J. Leishman.

State of California,

County of Los Angeles.—ss.

John Flam, being duly sworn, deposes and says:

I am the solicitor of record for plaintiff-appellant, Leroy J. Leishman. Said plaintiff-appellant gave me Two Hundred [52] Fifty (\$250.00) Dollars for the purpose of depositing the same on his behalf for a cash bond on appeal, and that said Leroy J. Leishman duly authorized me to make this deposit as his agent.

JOHN FLAM

Sworn and subscribed to before me this 4th day of September, 1941.

(Seal) MILDRED BROCKMAN LENEQUE.  
Notary Public in and for the County of Los Angeles, State of California.

[Endorsed]: Filed Sep 4, 1941. [53]

[Title of District Court and Cause.]

**STIPULATION AND ORDER FOR TRANSMITTAL OF THE RECORDS, PROCEEDINGS AND EVIDENCE**

It is stipulated by and between counsel for the respective parties on appeal that the Clerk of this Court in accordance with Rule 75 of the Rules of Civil procedure shall transmit to the Clerk of the Circuit Court of Appeals for the Ninth Circuit, the following designated portions of the records, proceedings and evidence in this cause, certifying those portions thereof that are necessary to be certified pursuant to said Rules of Civil Procedure or pursuant to the Rules of said Circuit Court of Appeals: the original reporter's transcript and Exhibits, both documentary and physical, forwarded pursuant to Rule 75, (i) shall be held by the Clerk of the Circuit Court of Appeals pending the appeal and thereafter returned to the Clerk of this Court; the cost of transmitting and certifying the record, proceedings and evidence specified herein shall be borne by the appellant.

A. Original reporter's transcript of the evidence and proceedings taken at the trial of this cause.

B. Copies of the following pleadings and documents on file:

1. Bill of Complaint.
2. Answer to bill of complaint.
3. Amendment to answer. [55]

4. Interrogatories propounded by plaintiff pursuant to Rule 33, but including only the following: 1, 2, 3, 16, 17, 25, 26 and 32.
  5. Defendant's answers to plaintiff's interrogatories 1, 2, 3, 16, 17, 25, 26 and 32.
  6. Opinion of Hon. Ben Harrison.
  7. Finding of fact and conclusions of law.
  8. Final judgment dated May 1, 1941.
  9. Order for enlargement of time under Rule 6(b) of the Federal Rules of Civil Procedure.
  10. Notice of hearing on motion under Rule 52(b) of the Federal Rules of Civil Procedure.
  11. Motion under Rule 52(b) of the Federal Rules of Civil Procedure for the District Court of the United States.
  12. Minute order on motion under Rule 52(b) of the Federal Rules of Civil Procedure for the District Court of the United States.
  13. Plaintiff's notice of appeal.
  14. Tender of cash in lieu of bond on appeal.
  15. This stipulation.
  16. Stipulation dated October 6, 1941, for extending the time to and including the 14th day of November, 1941, for Plaintiff to file a Transcript of Record on Appeal.
- C. All of plaintiff's physical and documentary exhibits, from 1 to 39 inclusive, and 22a.

D. All of defendant's physical and documentary Exhibits from A to N inclusive, as well as defendant's Cincinnati Exhibits 1 to 18 inclusive.

It is further stipulated that the parties hereto shall not file two copies of the reporter's transcript, as provided in [56] Rule 75(b).

Dated this 23rd day of October, 1941.

JOHN FLAM,

Attorney for Plaintiff.

LEONARD S. LYON

GIBSON YUNGBLUT

Attorneys for Defendant.

It is so ordered this 24 day of Oct., 1941.

BEN HARRISON

Judge.

[Endorsed]: Filed Oct. 24, 1941. [57]

[Title of District Court and Cause.]

CERTIFICATE OF CLERK

I, R. S. Zimmerman, Clerk of the United States District Court for the Southern District of California, do hereby certify that the foregoing pages, numbered 1 to 57, inclusive, contain full, true and correct copies of: Complaint; Answer to Complaint; Amendment to Answer; Interrogatories Propounded by Plaintiff; Answers of Defendant to Plaintiff's Interrogatories; Opinion; Order for

Judgment; Findings of Fact and Conclusions of Law; Judgment; Order for enlargement of Time for Filing Motion, with Affidavit in Support; Motion and Notice of Motion to Amend and Supplement Findings; Order Denying Motion to Amend and Supplement Findings; Notice of Appeal; Bond on Appeal; Stipulation and Order Extending Time to File Record and Docket Cause on Appeal; Designation of Contents of Record on Appeal and Stipulation and Order for Transmittal of Original Exhibits; which, together with the Original Exhibits and the Original Reporter's Transcript of Proceedings and Testimony, transmitted herewith, constitute the record on appeal to the United State Circuit Court of Appeals for the Ninth Circuit.

I do further certify that the Clerk's fee for comparing, correcting and certifying the foregoing record amounts to \$8.35, which fee has been paid to me by the Appellant.

Witness my hand and the seal of said District Court, this 4th day of November, A. D. 1941.

(Seal)

**R. S. ZIMMERMAN,**

Clerk

By **EDMUND L. SMITH,**

Deputy Clerk.

[Title of District Court and Cause.]

## TESTIMONY

### LEROY J. LEISHMAN,

the plaintiff herein, called as a witness in his own behalf, being first duly sworn, was examined and testified as follows:

The Clerk: State your name.

A. My name is LeRoy J. Leishman.

#### Direct Examination

Q. By Mr. Flam: What is your age, Mr. Leishman? A. 44.

Q. And your occupation?

A. I guess I could be defined as a radio engineer.

Q. When did you become interested in subjects allied with radio or radios?

A. I first became interested in subjects of that nature about 1917. I think that would be about 23 years ago.

Q. What was your first interest, in what subject in connection with those matters?

A. I was first interested in the matter of transmitting pictures electrically, either by radio or cable or wire.

Q. Can you state the extent of your interest? Was that from the standpoint of inventor or manufacturer or what?

A. I was an inventor of several different systems of picture transmission. In 1919 I introduced some of those systems commercially, particularly for use

(Testimony of LeRoy J. Leishman) ✓  
in the newspaper world; and from 1919 to 1925 systems devised by myself were the only ones in commercial use in the United States. These [31] systems were of considerable importance to newspapers because they enabled those newspapers to print pictures in probably an edition following the happening of a distant event, instead of having to wait for the mails. At one time we had more than 100 newspapers under contract to receive that service, and we operated until 1925, until the telephone company went into that field, the American Telephone & Telegraph Company, I mean.

Q. Did you have anything to do with the manufacturing of radio sets or anything of that sort?

A. Before I discontinued the picture transmission enterprise I went into the radio manufacturing business in a small way. The first operations along that line were here in Los Angeles and the manufacturing was done through the L. J. Leishman Company of Ogden, Utah; and we manufactured our radio receivers for installation in the Cheney phonograph which was manufactured in Chicago but distributed on the Pacific Coast by the Munson-Raynor Corporation, a Los Angeles firm. And I devised a combination of the phonograph and a radio set so that the same horn could be used for the two forms of entertainment; and we installed the radio sets in the Cheney cabinets as they came from the factory. And then a little later, I think in 1925, beginning in the summer of 1925 and extending un-

(Testimony of LeRoy J. Leishman.)

til the spring of 1936—or 1926, rather, I continued the radio manufacturing enterprise in Ogden, Utah; and there we manufactured a set under the trade [32] name of "Aristocrat" which we sold in the inter-mountain states. And toward the latter part of that manufacturing business I devised methods for reproducing phonographs and records electrically by means of the radio set and took out several patents in that field and we had several—that is, we had several licensees under those patents. Perhaps that is a slight misstatement, too. I formed a company called the "Elec-tru-tone Corporation" in which I had a half interest and that corporation had some licensees under those patents that I applied for but transferred to the Elec-tru-tone Corporation. Our licensees included the American Bosch Magneto Corporation which, incidentally, took a license after a suit was filed. The firm representing the defendant was the representative of the American Bosch Magneto Corporation in that instance. I also had the Parent Electric Company as a licensee, and the Webster Electric Company. I think, all told, I received about \$15,000 in royalties on those inventions.

I then began actively to do work in connection with television development about 1930. I first started work along that line about 1917 and it was very closely related with the matter of transmitting pictures for newspapers. In each case you were concerned with the transmission of pictures electric-

(Testimony of LeRoy J. Leishman.)

ally; so it was rather natural that I should get into television in about 1917. I wrote articles for some magazines on television. And then in 1930, when [33] it looked as if television might not be too far away, I started to actively doing work along that line. But I was concerned principally with three different problems. One was the transmission of television in natural color, in which a few patents have already issued to me. Another had to do with what they call framing the image, which means centering the picture or the television image on the television receiving screen on the receiving set. I have one patent issued on that. And then I was most especially concerned in my television work with tuning apparatus. It appeared when television was first considered that it would come into use as an adjunct to regular radio broadcasting and that probably each radio broadcasting station would have an associate television station. It is not possible on the same carrier wave or wave length to transmit the two portions of a television program, the sound and the picture; so essentially there must be two radio receivers, or at least two parts or receivers, and if the sound were to be broadcast in a broadcast band and the picture somewhere else, there would not be any relationship between the dial rotation or the dial settings. So I undertook to work out some kind of a tuning mechanism that would tune in these two parts, the combined sound and sight program, in a single manual operation; but

(Testimony of LeRoy J. Leishman.)

since the wave lengths were different you could not use two—or you could not use one tuning mechanism or one treadle bar, you might say, or rotatable [34] member. You had to have two; so the tuning mechanism is essentially operated independently. So, as a part of the solution of this problem of tuning two parts of the program in one operation, I had to invent a radio tuner which had to work essentially separately from the television tuner. So I made several inventions along that line and I think my first patent applications go back to about 1934.

Q. Who prosecuted those applications? Did you have a patent solicitor or didn't you?

A. Oh, I prosecuted them myself because at that time I could not afford the services of a solicitor that I thought was competent, and I had had a little experience with observing the work of other solicitors that were doing the work for me and I thought that with the aid of the information that I had gleaned, together with an attempt to follow the rules of practice of the United States Patent Office, that I would be able to act as my own solicitor, which I did; and the original or parent application that [35] I filed in 1934 was prepared by me and that included a great many tuning mechanisms, and the tuning mechanism that we are concerned with in this suit became the subject of a divisional application. The Patent Office required that the parent application be divided. [36]

(Testimony of LeRoy J. Leishman.)

Q. By Mr. Flam: I think you said you followed a parent application in 1934, in which was disclosed the same mechanism as illustrated in the reissue patent in suit. A. That is right.

Q. At that time did you know what had been used commercially in connection with the tuning of radio sets by mechanical means?

A. The only mechanical tuner I had ever seen or heard of at that time was one that Zenith Radio Corporation incorporated in its sets I think about 1929 or 1930.

Q. I hand you a piece of mechanism that I believe you mentioned in your last answer. Will you explain to the court what that is?

A. This is the tuning mechanism from a Zenith radio set, which was used for about two years. It contains about 39 buttons and is a very complicated mechanism. I think you can see from the bottom some of the complexities of the device. In this mechanism you have two elevators that go up and down and the elevators are attached to guide rods. These guide rods are provided on each side with guides to keep those rods in a definite path. That is true on both sides. Both elevators have a similar mechanism and they are connected again at the top. There are a multitude of parts in this mechanism, which was the first or the only one that I knew of at the time that I filed my patent application. [37]

Q. Is that mechanism that you have in your hand to the best of your knowledge a true replica

(Testimony of LeRoy J. Leishman.)

of the Zenith tuners on the market in that period prior to 1934?

A. It is. As far as I know, it is the only tuner that the Zenith Company ever used commercially and it is the only one that I knew of.

Q. When did you say these Zenith tuners were on the market?

The Court: That should be marked for identification so the record will be complete.

Mr. Flan: I would like to offer it in evidence, your Honor.

The Court: Is there any objection?

Mr. L. S. LYON: No objection, your Honor.

The Court: All right.

The Clerk: Plaintiff's Exhibit No. 3.

A. I think it was about 1929 or 1930. I don't know accurately but it was about that period.

Q. As far as you know, are there any of them that were offered for sale after that first period of commercialization?

A. As far as I know, they were on the market for about two years and then discontinued.

Q. Permanently? [38]

A. They never, as far as I know, have been used by the Zenith or anyone else since that original use by Zenith about that time.

Q. Continue with your account of mechanical tuning systems. What happened after that, if you know, in connection with systems for tuning radio sets mechanically?

A. Well, of course, there were some that tuned

(Testimony of LeRoy J. Leishman.)

the sets electrically but you have asked me about mechanical systems.

Q. Well, talk about the electrical systems, too.

A. There was an electrical system that came on the market, I think, about the same time or it may even have been previous to the introduction by Zenith of this mechanical automatic tuner. And the electrical tuners usually employed a motor and at some point remote from the radio set there was a series of push buttons and you would push those buttons and they would set into operation a motor and various apparatus that would tune the set. The Zenith mechanism was a mechanical tuner requiring no external motive power. The power exerted by the operator's finger on the button did all of the work. After that tuner was discontinued, I think along about 1936, automatic tuning reappeared. At that time there were some electrical tuners again, with which we are not particularly concerned, and also some tuners came on the market in 1936 of the so-called telephone dial type. These employed a dial on the front of the set that might vary in size from two and a half [39] or three inches up to more than a foot. Around the outer portion of the dial there was a series of holes, usually with little buttons at the rear of the holes, and on these buttons were placed the call letters of stations that might be accessible in a given community, and adjustments were provided so that the different tuning parts would bring in the particular stations that

(Testimony of LeRoy J. Leishman.)

the owner might desire. You would insert your finger in the hole in which the station call letters appeared that you wanted to listen to and then turn the dial around toward the bottom until it stopped. Those came into use in 1936, I believe, in a small way. Just a few manufacturers used them. And, in 1937, most manufacturers included such tuners in their line and it was the very common type of tuning in that period. In fact, in 1937, I became quite interested in seeing what other concerns were using because I was interested in commercializing my own methods. And I obtained some copies of Radio Retailing, a leading trade journal in the radio industry. And it so happens that the June number was devoted largely to a discussion of the new features that were introduced in radio sets at the National Radio Show, which is usually held in Chicago. And that magazine and the two subsequent issues of Radio Retailing will bear out the fact that the telephone dial type of tuning was the common type of tuning at that time. And that was the first mechanical tuner I knew of since the discontinuation of the Zenith apparatus. [40]

Q. Was the telephone dial type of tuner satisfactory or not, do you remember?

A. It was not very accurate in and of itself. Mechanically, it wasn't particularly accurate. It wasn't accurate enough for good tuning if not assisted by some other means. In fact, that type of tuning was known for some time but it never came

(Testimony of LeRoy J. Leishman.)

into use until circuits were worked out to compensate electrically for the mechanical inaccuracies of those tuners. Those circuits were generally referred to as automatic frequency control circuits or most engineers merely called the circuits, A, F, C. And in advertising the sets at that period the different manufacturers would advertise that as one of the particular features of the set, that it was equipped with automatic frequency control. And, that, as I have stated, compensated for the mechanical inaccuracies of the telephone dial type of tuner.

(Short recess.)

Q. By Mr. Flam: I think you mentioned the June, July, and August, 1937, issues of Radio—

A. Radio Retailing.

Q. Radio Retailing. You have issues available?

A. Yes; I have June, 1937, July, 1937, and August 1937. [41]

Q. You might explain to the court what type of magazine this publication is.

A. Radio Retailing is a radio trade journal which, as the name implies, was intended primarily for retailers, but jobbers, I am quite sure, figure prominently among its subscribers, and it is a sort of—

Q. Is it a prominent magazine in that field?

A. Yes; I think it is the leading radio journal or trade magazine or trade journal. [42]

Q. Will you turn to the pages on which these telephone dial systems are described?

(Testimony of LeRoy J. Leishman.)

A. Yes. On pages 20 and 21, there is a double spread of the June, 1937 number. There is an article called "New Features Make Old Radios Look Oldy." And that article tells about the new features introduced and shown ~~on~~ sets at the Show. There is one paragraph in particular that is pertinent. It says that, "It is evident that the telephone dial type of tuning mechanism appealed to most designers as the majority of makers have adopted such, although several have succeeded in producing interesting departures from that basic idea." And then there is a cut running across the page that is headed—

The Court: Just a moment. I can read. If counsel wants to introduce these articles, the court will go through them.

Mr. Flam: I think that is better.

A. May I refer to the pages that are pertinent in each one?

The Court: You may mark each one with a marker of some kind so that I can readily find it and I will go through them. I presume this is for the purpose of showing the state of the art at that time as far as tuning is concerned.

Mr. Flam: Yes.

A. I have marked them in ink on the outside, that is, what pages are pertinent.

Mr. L. S. Lyon: Will you just read the pages into the [43] record?

Mr. Flam: Yes.

A. All right. In June, 1937, the most pertinent

(Testimony of LeRoy J. Leishman.)

pages are pages 20 and 21 but also, in ink on the outside of the magazine, I call your attention to the advertisements throughout the magazine so that it can be learned from the features that the set makers advertised what type of sets they were manufacturing and offering to the public. And that is true in July and August, 1937. They are similarly indicated:

Mr. Flam: I would like to offer in evidence the three issues.

The Court: Is there any objection, counsel?

Mr. L. S. Lyon: No objection to those particular pages mentioned [44]

The Clerk: Plaintiff's Exhibits Nos. 4, 5 and 6.

Q. By Mr. Flam: Are you the patentee of Re-issue Patent No. 20,827 in suit here?

A. I am.

Q. Have you a copy of that reissue patent with you? A. Yes.

Q. Will you explain to the court by the aid of this model what that patent discloses?

Before you begin, I would like to have that model marked for identification as Plaintiff's Exhibit No. 7.

The Clerk: Plaintiff's Exhibit No. 7 for identification.

Q. By Mr. Flam: Go ahead.

A. Shall I do this by comparing the patent with the tuner?

Q. First of all, I might ask you who made the

(Testimony of LeRoy J. Leishman.)

model? Under whose supervision was it made?

A. The model was made under my supervision and partly by me, that is, partly done by my own hands.

Q. And what is it supposed to represent?

A. It is supposed to represent the tuner as described or the particular structure or embodiment described in this [45] reissue patent in suit.

Q. Will you go ahead and explain the structure shown in Reissue Patent No. 20,827 by the aid of the model, if necessary?

A. Yes. I might identify some of these parts to facilitate the explanation. The inner—

Q. By the Court: This represents what you call 48, does it not?

A. That is right, your Honor.

Q. And 54 is the outside piece?

A. That is right.

Q. This represents 25? A. The other end.

Q. Yes; the other end. And this screw here is what represents 56, is it?

A. No. That screw represents 51 over here.

Q. 55 and 56 do not show in this model, do they?

A. No. They were omitted because they were supposed to be connected with the television sets, with which we are not concerned yet.

Q. S represents this shaft through here, does it not? A. That is correct.

Q. Where is 53 on this?

A. 53 is just a bearing.

(Testimony of LeRoy J. Leishman.)

Q. Well, where is that bearing?

A. That is the hole of this end plate, the hole in the [46] end plate through which it comes. You see, 53 is just a conventional way of showing diagrammatically in drawing a bearing which supports the shaft.

Q. In your patent you do not show the dial that is shown on the model, do you?

A. No. It is stated in the patent it is for connection by any of a variety of mentioned means to a radio set. So that was obvious. And it is only included on this model to make it more clear how it operates.

Q. On Figure 2 this thing represents 72, does it not, that I am touching?

A. That is correct, your Honor.

Q. Q represents this connection over here, does it?

A. Yes. That is the shaft on which it is pivoted or rotated.

Q. And 67 represents the other shaft that fits over the top of it, does it?

A. 67 is the point at which that is connected.

Q. The two shafts are connected?

A. The two levers.

Q. There are two separate levers and one fits over the other in part, does it not?

A. That is right, your Honor. 66 fits over F.

Q. And this 68 represents this portion right in here, does it not?

(Testimony of LeRoy J. Leishman.)

A. Yes; it does, your Honor. [47]

Q. This piece here is marked by

A. 61.

Q. Where is 61? 61 represents this portion here and 65 is this octagon screw or bolt?

A. That is right. And 60 is the pivot itself there, the little stud or shaft.

Q. And it goes through there?

A. That is right, your Honor.

Q. The effect of unscrewing this pivot that you have marked 72 is what?

A. To release those tappet members or positioning means, whatever you might call them, so that they are free to turn to any position.

Q. How are those tightened? Of what effect is the screwing of this?

A. It brings the top or saddle shaft here—or it presses it downward so that those lower extensions 68 on the one we are having to do with—it causes 68 to clamp down on the hub.

Q. What are these two little pivots that come through here?

A. Those are just stoppers to limit the movement. They are not shown on here. They were put on there to keep them from flopping around.

Q. Aren't those the ones that bind that when it is tightened? [48] A. Oh, no.

Q. What effect do they have?

A. They merely make it so they won't turn so

(Testimony of LeRoy J. Leishman.)

far to one side or the other so as to flop around or get in the way.

Q. What is there about this that, when you tighten that, fastens this thing that you designate as 62? Isn't this portion here that I am pointing at now designated as 62 in your Figure 2?

A. Yes; that is 62.

Q. What is there about the releasing of 72 that releases 62 and gives it a free movement?

A. On the bottom or lower portion of 62 there is an extension and that extension strikes the hub of this tappet member 62 and clamps it in the position to which we have adjusted it. I think that can be seen better if we look at the other tappet on the other side, where we have a duplicate of the idea. The tappet 61 having to do with the radio set is free at present to move on its axis but the hub of that tappet extends under the lower projection 68 carried by this lever 66 that straddles lever F. When you tighten that down—

Q. Just go ahead and tell about it. I am going to play with this out of court and find out how it works. If I take it apart, do you think you can put it together again? [49]

A. Yes, your Honor. I might make this one statement that will clarify the question you asked me. When you tighten this, the portion 68 comes down on that hub and clamps it there. You can't move it now. That is not tightened up very much. Of course, how much pressure you give this all

(Testimony of LeRoy J. Leishman.)

depends on how much you need. The one for radio is clamped fairly tight. To explain the setting of it further I might say that, when you release this button and let the tappet turn freely, the first thing that is essential in setting it is to bring this tappet member or positioning cam into engagement with the rocker; and, when it is in engagement with the rocker, you will notice that the two turn just as a unit. The pivoting point or the axis around which this turns—when you press the assembly down, that axis point comes into alignment with the axis of the rocker. So they are coaxial and they turn as a unit. If we turn this hand, to any position—of course, on an ordinary radio set this knob is on the front of the set but, for simplicity, it has been placed on this model directly on the shaft connected to the treadle bar or rocker. If we turn that to 1200 and tighten this up, it assumes the angular position that the rocker is in.

Q. You could have a whole row of these, could you not?

A. Yes; and it so states, your Honor, in the patent.

Q. How is it in the original patent?

A. The original patent is verbatim so far as the [50] language of claim 6 is concerned. There is not a word of the specification that has been changed or the drawings.

Q. I found that out in studying it; that the first six claims are identical.

A. That is right, your Honor.

(Testimony of LeRoy J. Leishman.)

Q. The only change is the addition of six additional claims? A. I might point out here—

Q. What I am getting at now is does this rocker that is designated as 48 in here indicate a complete opening?

A. Yes. However, since we had only one lever on there, we only showed the one opening.

Q. Any lever that is pressed to come in contact with that rocker would have to hit an open space, would it not, within the rocker?

A. If it were to be successfully operated; yes, your Honor. That is the reason why on this drawing the treadle is shown as long as it is because it is contemplated that there will be a number of these push button devices, all of which would engage the same rocker. That is why it is shown this way.

Q. But this outside rocker as far as the straight radio is concerned is surplus?

A. Yes. In fact we could take it off of this model entirely if we wanted to confine the model to the particular [51] thing—

Q. Your first six claims here definitely tie in to radio and television, do they not?

A. Claim 5 does not, your Honor.

Q. Well, with the exception of claim 5?

A. With the exception of claim 5, that is true.

Q. Your original claims were to work out a device, an automatic device, to tune in both television and radio at the same operation?

(Testimony of LeRoy J. Leishman.)

A. That was a phase of it. However, in my objects in the beginning of the patent I state that one of the objects is to make it possible for a single manual operation to tune either a radio set or a television set or both. And it was recognized, of course, that, if you would—

Q. In your claims you made your claims on the basis that it was to be for a dual purpose?

A. With the exception of claim 5, that is true.

Q. Claim 5 is out? You abandoned that?

A. It is out now but at the time the original patent was issued that was a part of it. And when the reissue came out it was also a part of that but since then it has been disclaimed. Claim 5 covers the particular basic structures—

Q. May I see the Zenith?

A. Of course, we are looking at this upside down. I think it will be apparent that my mechanism—[52]

Q. What would you call this in the Zenith? That is for the purpose of setting them, isn't it?

A. That is connected to the radio set, and it would be manually adjusted by the regular knob on the set and, as you turn that, these elevators move up and down. I think you could call those elevators. It is just a matter of terminology.

Q. Don't they serve the same purpose as a rocker in your model?

A. They serve the purpose of positioning the radio set all right enough but they have associated

(Testimony of LeRoy J. Leishman.)

with them a large number of parts, and I greatly simplified the device by using a rocker instead of all that complicated mechanism that they have.

Q. For instance, if I am pressing one of the tuners, or whatever you call it, what would you call this thing I am pressing?

A. An operating member.

Q. Of course, that operating member is not so much more complicated than your operating member, is it?

A. No; I wouldn't say that that is.

Q. So, if yours is a complete one, representing some 9 stations, it would be a mass like this, too, would it not?

A. So far as the levers are concerned, there would be a similar mass.

Q. Then, where is the complicated structure?

[53]

A. The complicated structure comes in the part that you move or position. Here is one member or one part on one side and here is another part. They have already got one more part than there is on mine. And there is at the other end, I think, a similar part like this and a similar part like this on the other end and then on each side we have a rod connecting this member to its corresponding part on the other end and then connecting this elevator here to a similar elevator on the other end. And then, to keep them in a definite path, there are four guides provided on this side, one here and

(Testimony of LeRoy J. Leishman.)

one here<sup>4</sup> and two at the other end; and on the other side we have four guides, this guide here and two corresponding guides on the other end. And, by my simple mechanism, with the open treadle bar in coaxial arrangement in the tuned-in position, that is, with the axis in line with this tappet member, and by substituting that simple arrangement, I did away with all of those numerous parts I have just pointed out to you and greatly reduced the complexity and cost of the mechanism.

Mr. T. S. Lyon: Mr. Leishman, I have a specimen here you may want to use of the Zenith feature, with just one of the operating units in there, so that you can compare one as against one instead of a whole set.

A. Thank you very much. This will be of very great help, your Honor. Here we have the elevators going up and down. This elevator is connected to this member and this [54] other side is connected to this member and we have this connecting piece across the top. On the other side the other elevator is similarly connected to this side piece as it is here and we have this across the top.

The Court: I can follow it all right. You need not spend any time on that.

A. And here are all of the guides, 1, 2, 3, 4 and 5, and over here I introduced a great simplification over that with the open treadle.

Q. The object of the two devices is just the same, is it not?

(Testimony of LeRoy J. Leishman.)

A. The object is just the same, to tune a radio set. And, course, any simplification is highly desirable and that is what I set out to accomplish.

The Court: All right. Proceed, Mr. Flam. I would like to have these two Zenith models marked for identification.

Mr. Flam: One of them is already in evidence, your Honor, I think.

The Court: Yes; that is right. May the other one be admitted in evidence?

Mr. L. S. Lyon: Yes, your Honor.

Mr. Flam: They may be offered in evidence without objection.

The Clerk: Plaintiff's Exhibit No. 8.

Mr. Flam: Of course, one of them is not my exhibit or device. [55]

Mr. L. S. Lyon: It is merely to illustrate one unit as compared with a whole set.

Mr. Flam: I am not responsible for that exhibit, though.

Mr. L. S. Lyon: Then, just mark it for identification as Defendant's Exhibit A.

Q. By Mr. Flam: I am not sure, when you were demonstrating the model Plaintiff's Exhibit No. 7 for identification, whether you demonstrated to his Honor just how the setting was to be accomplished to make it possible to bring the tappet or positioning cam to the proper position.

A. I think, I demonstrated that.

The Court: Yes; I think he did.

(Testimony of LeRoy J. Leishman.)

Mr. Flam: I offer that model in evidence as an exemplar of the disclosure in the patent.

The Court: It may be admitted.

The Clerk: Plaintiff's Exhibit No. 7.

Q. By Mr. Flam: Did you do anything to commercialize these tuner inventions that you were talking about? A. Yes.

Q. What did you do?

A. In the summer of 1937, I made a trip east with a model embodying two-point positioning to sell the radio industry on the idea of two-point positioning again. It had never been used in conjunction with a tappet member working directly on a treadle. And then, of course, in [56] 1938 I licensed the Crowe Name Plate & Manufacturing Company. That company, I might say, took a license in 1937 under the first patent that issued from this parent application that I filed in 1934. And then, when this additional patent issued.

Q. By this additional patent you mean what?

A. I mean the one of which the reissue is a reissue. When Patent No. 2,108,538 issued, the Crowe Name Plate & Manufacturing Company took a license under that patent which was subsequently reissued and is the one in suit.

Q: By The Court: Did they manufacture any under it?

A. Yes. I have here one of the tuners that they manufactured under that patent. I might say that another firm in Chicago, the Quality Hardware &

(Testimony of LeRoy J. Leishman.)

Machine Corporation, had started the manufacture of this tuner in substantially this form, and I served an infringement notice on them and they recognized the validity of my patent, and I had given the Crowe Name Plate & Manufacturing Company the exclusive right to make the tuners for resale to radio manufacturers. I reserved for myself the right to license manufacturers to make their own tuners. So, inasmuch as the ~~Crowe Name Plate & Manufacturing Company~~ had that kind of a license, I told the Quality Hardware & Machine Corporation that, if they wanted to continue making these, they would have to make suitable arrangements with the ~~Crowe Name Plate & Manufacturing Company~~, my licensee. And the ~~Warwick Manufacturing Company~~ [57] was in some way tied up in that, too. They owned part of the dies that the Quality Hardware & Machine Corporation were using. And both of these firms, the Quality Company and the Warwick Manufacturing Company, acquiesced in the validity of the patent and arrangements were made—

Mr. E. S. Lyon: I don't think that the witness should tell us about these things if they are in writing. I suppose they are in writing. I don't think he should tell us about acquiescence if they are embodied in written instruments.

The Court: I don't know what materiality the written instruments would have anyhow. I asked him a question and he answered it by producing

(Testimony of LeRoy J. Leishman.)

A. Incidentally, the patent number of the device is stamped on both end plates.

Mr. L. S. Lyon: Is that last device going to be offered for identification? I would like to see it.

A. You will notice that has the little tappet member and the open treadle and so on.

Q. By Mr. Flam: As to this mechanism that you have just produced, which you say is manufactured by the Crowe Name Plate & Manufacturing Company, you stated that was one of the licensed devices under your patent, is that right?

A. That is correct.

Mr. Flam: I offer this device in evidence.

The Court: It may be admitted. [58]

The Clerk: Plaintiff's Exhibit No. 8.

Q. By Mr. Flam: Did the Crowe Name Plate & Manufacturing Company make any investigation, do you know, of your patent before they took a license?

Mr. L. S. Lyon: I object to that: We are not bound by an investigation made by somebody else.

The Court: The objection is sustained.

Q. By Mr. Flam: I think you mentioned the Quality Hardware Company and Warwick Manufacturing Company. A. Yes.

Q. Do you have any letters or circulars relating to the cleaning up of this situation with the Crowe Name Plate & Manufacturing Company?

The Court: Of what materiality is that to the case in issue?

(Testimony of LeRoy J. Leishman.)

Mr. Flain: An acquiescence in the validity of the patent, which may be of some importance.

Q. Do you have that letter?

A. Yes; I do have it here some place.

The Court: Do you mean somebody else acquiesced in the validity of it?

Mr. L. S. Lyon: May I see the letter before you offer it?

Q. By Mr. Flain? You have a circular letter, I think, signed by the Crowe Name Plate Company, stating about the effect of having a license, do you not? [59]

A. Yes; I do.

Q. That is what I would like to have to show to his Honor.

A. Just a moment and I think I can produce that. This is an announcement that the Crowe Name Plate & Manufacturing Company sent out to the trade.

The Court: Have you seen it?

Mr. L. S. Lyon: No; I have not.

Mr. Flain: We had better show it to opposing counsel.

A. At the time the arrangements—

Mr. Flain: Just wait until they have a chance to read it.

Mr. L. S. Lyon: You haven't offered it yet, have you?

Mr. Flain: Not yet but I expect to.

(Testimony of LeRoy J. Leishman.)

Q. Will you go on with your answer? What is this?

The Court: I think the instrument speaks for itself.

Mr. L. S. Lyon: The court can read the document.

Mr. Flam: I will offer it in evidence, then.

Mr. L. S. Lyon: We object to it on the ground it is not competent or relevant and not admissible against the defendant as proof of any of the statements contained in the announcement. The defendant was not a party to this.

The Court: What is your point as to acquiescence by other people having any binding effect upon either the defendant in this case or upon this court as evidence?

Mr. Flam: It is not binding, your Honor.

The Court: Where is there any law to the effect that what [60] some third party may have been willing to pay as tribute is any proper evidence in this case?

Mr. Flam: I think there is an inference to be drawn from that, your Honor and I believe there may be some decisions stating that. Public acquiescence and validity of a patent are of some value.

The Court: I don't want to foreclose you from offering any evidence that is proper. It may be marked for identification at this time and I am going to ask counsel to see if he can furnish me with some authority under which it may be admitted.

(Testimony of LeRoy J. Leishman.)

The Clerk: Plaintiff's Exhibit No. 9 for identification.

Mr. Flam: All right.

Q. Have you received any royalties on tuners that were licensed to the Crowe Name Plate Company?

Mr. L. S. Lyon: I object to that. It appears that he licensed the Crowe people under various patents and various devices and I don't think the aggregate of such royalties he may have received from them would be relevant or throw any light at all upon any issue in this case or even constitute proof of payment of royalties for devices embodying the invention of the patent in suit.

Mr. Flam: We are not going to ask for any lump sum statement of royalties, Mr. Lyon.

Q. You did receive royalty payments on tuners such as [61] these shown by Plaintiff's Exhibit No. 8, did you not?

A. Yes; I think on about 200,000 buttons approximately.

Q. By buttons do you mean each individual actuator? A. Each individual actuator.

Q. Of which four are shown embodied in Exhibit No. 8? A. That is right.

Mr. Flam: At this time we offer in evidence this exemplar of the Crosley set tuning mechanism furnished by the defendant.

Mr. L. S. Lyon: No objection.

(Testimony of LeRoy J. Leishman.)

The Court: It may be admitted.

The Clerk: Plaintiff's Exhibit No. 10.

Q. When did you first hear of Crosley sets going on the market embodying substantially the mechanism of Plaintiff's Exhibit No. 10?

A. I first learned of it when I received a copy of the January 26th issue of Radio Weekly, a magazine to which I subscribed.

Q. What year? [62] A. January 26, 1938.

Q. Will you refer to the page; without reading it?

A. There is an article begins, your Honor, on page 1, entitled "Crosley Develops New Push Button Auto Radio Model." That article is continued on page 10, on which a picture of the set installed under the dash panel of an automobile is shown. It is pages 1 and 10.

Mr. Flanigan: I offer pages 1 and 10 of the issue of January 26, 1938, of the Radio Weekly in evidence.

Mr. L. S. Lyon: No objection.

The Court: It may be admitted.

The Clerk: Plaintiff's Exhibit No. 11, [63]

Mr. Flanigan: If your Honor please, before we adjourned, as to this matter of the circular that we offered in evidence and marked for identification, Plaintiff's Exhibit No. 9, I call your Honor's attention to the U. S. Code Annotated, Title 35, paragraph 31, footnote 76, where it says, "The recognition of a patent by the public or its commercial success affords evidence of invention", followed by

(Testimony of LeRoy J. Leishman.)

numerous authorities on that point. I didn't have a chance to examine all of those authorities during the recess.

The Court: What is your position on that now, Mr. Lyon?

Mr. L. S. Lyon: My position is that this announcement or purported announcement of the Crowe Name Plate & Manufacturing Company is hearsay so far as evidence of the facts that it purports to recite.

The Court: That would be true of any publication, wouldn't it?

Mr. L. S. Lyon: Except such value as it might have as a publication but not for proof of the facts recited in the publication or announcement. The fact, for instance, that these people are licensed would have to be proven by the license if the license is in writing and not by a letter.

The Court: That doesn't go so far as to prove the [65] license. It simply appears to the court as a public recognition of the use of this method and having made arrangements, but what those arrangements are is another matter. I am going to admit it for what it is worth.

The Clerk: Plaintiff's Exhibit No. 9. [66]

(Testimony of LeRoy J. Leishman.)

**LeROY L. LEISHMAN**

recalled.

Direct Examination

resumed.

Mr. Flam: Your Honor, I may say that this witness has testified regarding the existence of a license between himself and the Crowe Name Plate & Manufacturing Company. I think he has the original license in his possession and I can offer it but my understanding is that a licensor can state facts if there is a license existing, without it being necessary to prove it by writing. I have no objection, however, if the witness has it, to offering it in evidence.

The Court: I don't believe a person can testify to the contents of a written instrument when the written instrument is in existence.

Mr. Flam: I will ask Mr. Leishman to produce that document in which a license is granted to the Crowe Name Plate & Manufacturing Company on Reissue Patent No. 20,827.

Q: Will you do so?

A: Here is the agreement.

Mr. Flam: I offer that agreement in evidence.

Mr. L. S. Lyon: We can examine this a little later.

The Court: Admitted.

The Clerk: Plaintiff's Exhibit No. 12.

(Testimony of LeRoy J. Leishman.)

Mr. L. S. Lyon: We would like to reserve an objection, your Honor, on the ground that it is not relevant or competent on any issue in this case. [67]

The Court: If there is going to be a question about it, then I want to examine it myself.

Q. By Mr. Flam: Mr. Leishman, while we are on the subject, this letter seemed to be included between the pages of the contract. Is that a part of the contract or was it included with it or is that an inadvertence?

A. It doesn't appear to be a part of the contract at all. In fact I remember now that it wasn't. This was a letter on some points that were agreed upon a few days after the contract was signed and I put them ~~all~~ together in my kit.

Mr. L. S. Lyon: From my hasty examination of that license and the structure illustrated in it, it doesn't appear to be the patent involved in this suit.

The Court: This is Patent No. 2,108,538. Is that the patent?

Mr. Flam: That is the patent upon which the reissue was based.

The Court: Is that the reissue patent?

Mr. L. S. Lyon: Yes.

Q. By Mr. Flam: Isn't there some statement in there, Mr. Leishman, about the license extending to the reissue?

A. I don't know whether there is anything in there stating that.

(Testimony of LeRoy J. Leishman.)

The Court: It says, "pending applications."

Mr. L. S. Lyon: As I looked at that, I did not—

The Court: I can't recognize the drawing. [68]

Mr. Flam: No. I think that is intended to disclose another form of invention which was to be included in the license. It is not intended to be a drawing of the patent that is involved here. That license, as your Honor may see, includes not only a license under this patent but others as well, and these drawings are illustrative of other devices that may be licensed.

The Court: I am going to admit it on the theory of the citation that you gave the court.

The Clerk: Plaintiff's Exhibit No. 12.

Q. By Mr. Flam: Mr. Leishman, I think you mentioned that in the Radio Weekly, Plaintiff's Exhibit 11, on page 1 there was an article relating to the Crosley push button development. Is there any other issue of the Radio Weekly that has a bearing on that development by Crosley?

A. Yes, I have a copy here of a February 9, 1938, issue of Radio Weekly.

Q. By the Court: Is your ad on the inside of that back cover again?

A. No. This is something different. On page 4 which I have referred to, on the front page there is an article pertaining to this. Incidentally, I might explain to your Honor that this on the left-hand side was—that article was clipped out, and then

(Testimony of LeRoy J. Leishman.)

later I pasted it back in by means of Scotch adhesive tape, as you will see on the reverse side of the page. [69]

Q. By Mr. Flam: Were you a subscriber to that magazine Radio Weekly? A. Yes.

Q. Did you obtain the issues of January 26, 1938, and—what was the date of the other one?

A. I think it is February 9th.

The Court: February 9, 1938.

Q. By Mr. Flam: Did you receive those copies?

A. Yes; I received them through the regular course of being a subscriber.

Q. What is the standing of this magazine in the radio field? Does it have any standing or is it just

A. It is my understanding that it is the leading radio weekly.

Mr. L. S. Lyon: Do you contend that these articles were written and authorized by the defendant—we have not had the time to check them—or are you just offering these to show what information the witness acted upon?

Mr. Flam: Well, of course, we have no evidence of the authorization for these articles. The witness acted, however, upon these representations. I offer page 6.

The Court: All right; admitted.

Mr. L. S. Lyon: I have no objection to the articles for the limited purpose stated.

The Court: He has stated it, so there is no argument.

(Testimony of LeRoy J. Leishman.)

Mr. Flanigan: Page 5 of February 9, 1938, issue of Radio [70] Weekly is offered in evidence. You may cross-examine.

#### Cross Examination

Q. By Mr. L. S. Lyon: Mr. Leishman, did you ever build or was there ever built for commercial use any devices in the form and of the kind shown in the drawings of your reissue patent No. 20,827?

The Witness: Will you repeat that question? There was a part of it I did not get.

(Question read by the reporter.)

A. Yes; I built a model originally and then I built this model here that is in evidence.

Q. By Mr. L. S. Lyon: Neither of those are commercial devices, are they, neither of those models?

A. No; neither of those are commercial devices of that exact form or embodiment.

Q. Was any commercial device ever built to your knowledge of that form?

A. No. That exact form or embodiment was never used commercially.

Q. Was there any embodiment of the device shown in your patent reissue 20,827 ever built commercially employing the pivoted lever arrangement shown in the drawings of your patent?

A. Just what part do you mean by the pivoted lever?

Q. I mean that the tappet — [71]

(Testimony of LeRoy J. Leishman.)

The Court: Are you referring to Figure 3?

Mr. L. S. Lyon: Yes, Figure 2 particularly.

The Court: 21.

Q. By Mr. L. S. Lyon: Figure 2, that the tappet was mounted upon a lever which was pivoted at a pivot such as the pivot Q of the drawing?

A. No; there was none made in which the tappet was pivoted upon a lever because the device was already in commercial use when the patent was issued. That was my position.

Q. You mean commercially, a device such as the defendant's device was already in commercial use?

A. That is right.

Q. But that device was not manufactured under any agreement or understanding with you?

A. No; that is correct.

Q. You have never received royalty upon any device which you contend is covered by your reissue patent No. 20,827, except this single transaction which you refer to that you had with the Quality Hardware Company which relates to a device of the type of your Exhibit No. 8, is that correct?

The Witness: That question was pretty long. May I ask you to read that?

(Question read by the reporter.)

A. I think the correct answer to that is No. [72]

Q. Well, you say you did receive a royalty on \$0,000 of the devices corresponding to Plaintiff's Exhibit No. 8, is that correct?

A. That is correct.

(Testimony of LeRoy J. Leishman.)

Q. Do you know at what date those devices were manufactured that were included within those 50,000, when the manufacture commenced and when it ceased?

A. The manufacture of those on which I received royalties probably started about October; but the sale of them began—

Mr. Flam: What year?

A. —about November, 1938, and I still receive royalties on that type of instrument. [73]

Q. By Mr. L. S. Lyon: Was this same device being manufactured by the same concern—I am referring to the device of Exhibit 8—prior to the manufacture of such devices on which you received royalty?

The Witness: May I ask you to read that question again?

(Question read by the reporter.)

A. Substantially that device was being manufactured by the Quality Hardware Machine Corporation before I started to get any royalties.

Q. And before you made any arrangement with them whereby they were to pay you any royalties under any of your patents, isn't that correct?

A. That is correct.

Q. And do you know when that manufacture started?

A. I couldn't say for a certainty. I could only give you approximately.

(Testimony of LeRoy J. Leishman.)

Q. Don't you know that it was after the Crosley tuner which you accuse of infringement in this case had been placed on the market for public sale?

A. Oh, yes; that is definitely true.

Q. In other words, this Exhibit 8, the device of this type, the manufacture thereof by the Quality Hardware Company began after the Crosley device was on the market? A. That is correct.

Q. Was that manufacture by the Quality Hardware Company started as a result of any information furnished by you, or [74] any arrangement or understanding with you?

A. Not what was done previous to the license arrangements that I have discussed.

Q. Then, the true situation is that after the Crosley tuner went into public use this Quality Hardware Company brought out a device like this Exhibit 8; and that some time after they had engaged in that manufacture and sale, then you had this arrangement for the first time with them to which you have referred, is that correct?

A. That is correct. I served an infringement notice on them and they took a license.

Q. Have you ever received any royalty under the reissue patent involved in this case other than upon this device of the type of Plaintiff's Exhibit 8 made by the Quality Hardware Company?

A. Well, my answer to that would involve how much is to be included in "that type". I have received royalties on other tuners embodying that gen-

(Testimony of LeRoy J. Leishman.)

eral principle from the Crowe Name Plate & Manufacturing Company that have been made specially for various radio manufacturers that depart from that exact form there.

Q. Your license arrangement with the Crowe Name Plate & Manufacturing Company involves various other patents besides the one here in suit?

A. That is correct.

Q. Have they manufactured a device corresponding to [75] Plaintiff's Exhibit 8?

A. Which is Exhibit 8?

Q. The one I have in my mind.

A. Have they manufactured one corresponding to that?

Q. Yes. A. Yes.

Q. And paid you a royalty on it? A. Yes.

Q. Are you receiving royalties on such a device at this time? A. That is correct.

Q. Are you receiving royalties on devices made by the Quality Hardware Company at this time?

A. Yes. I might say that these two companies are generally concerned in the manufacture of that unit and the unit that Crowe makes sometimes the parts are made in one plant, sometimes in the other.

Q. Are you receiving royalties from any other concern except the Crowe Name Plate & Manufacturing Company or the Quality Hardware Company under the patent involved in this suit?

A. No.

(Testimony of LeRoy J. Leishman.)

Q. You do not contend, do you, that the tuners manufactured by the Crowe Name Plate & Manufacturing Company and the Quality Hardware Company are any large percentage of the volume of tuners manufactured and put into use in this [76] country, do you?

A. No; it is a very small percentage.

Q. Then you do not claim that the industry in general has recognized the rights that you assert under the patent here in suit, do you?

A. I claim that they recognize the principle of my contribution; but the industry in general has not yet recognized the patent. They seem to have felt that if the Crosley can use it that they can.

Q. I hand you a specimen of a tuner and ask you if you have ever seen a tuner of this kind before?

A. Yes.

Mr. Flam: Let me see it for a moment.

A. I am very familiar with that type.

Q. By Mr. L. S. Lyon: Do you know who manufactures that tuner?

A. Not for certain. There are two or three concerns that manufacture a tuner very similar to that.

Q. Is such a tuner as that manufactured by your licensee, the Crowe Name Plate & Manufacturing Company, or by the Quality Hardware Company to which you have referred?

A. The Crow Name Plate & Manufacturing Company manufacture a tuner very similar to this.

Q. Can't you recognize that as a tuner manu-

(Testimony of LeRoy J. Leishman.)

factured by the Crowe Name Plate & Manufacturing Company?

A. No; I can't. The Belmont Radio Corporation make one [77] very similar to this; in fact, it bears the initials of the Belmont Radio Corporation; at least, it says "Pat. Pending B. R. C., Chicago."

Q. Do you know whether or not that company has those tuners made by the Crowe Name Plate & Manufacturing Company for it?

A. I think I could give you the answer or the information you want if I depart a little bit from a direct answer to your question there.

Q. Well, you answer it as best you can.

A. No; I don't know whether the Crowe Name Plate & Manufacturing Company are manufacturing any of these for the Belmont Radio Corporation.

Q. You are receiving royalty from the Crowe Name Plate & Manufacturing Company under your license agreement with them on tuners of the type of this that you have in your hand, are you not?

A. No; I don't receive any royalties on this type of unit at all.

Q. Do you contend that that type of tuner is covered by the patent here in suit? A. No.

The Court: That should be marked for identification so the record will be complete.

Mr. L. S. Lyon: I will ask that this be marked for identification as Defendant's Exhibit B.

Q. You have stated on your direct examination

• (Testimony of LeRoy J. Leishman.)

something [78] to the effect that you prosecuted the applications of which the patent here in suit was one in your own name and personally, rather than through an attorney, because you did not feel that you could pay an attorney who was competent enough to handle such applications. Will you tell us more about what you meant by that statement?

A. Yes. It has been my experience with patent attorneys that the more valuable their services and the better they are as attorneys the higher their fees are. The first patent I ever obtained was obtained by an attorney who made a very low price, an advertising attorney in Washington, and I subsequently learned that that patent wasn't worth very much. Then later I paid as high as \$495 to attorneys for their fees for preparing a single specification. And at the time that I made my own applications I was applying for a good many patents on different things and it would have been entirely impossible for me to have carried through the patent program that I was then undertaking if I had to pay the customary attorney's fees. The only way I could carry through that program would be to save those fees and do the work myself.

Q. Before you filed any of the applications which resulted or were involved in the issue of the patent here in suit, approximately how many patent applications had you filed, not as an attorney yourself but entirely?

(Testimony of LeRoy J. Leishman.)

A. I would say somewhere around 7 or 8. [79]

Q. And those had all been handled by attorneys?

A. Yes.

Q. And their prosecution extended over how many years?

A. The prosecution of an individual case or all of that?

Q. When did you file the first one? In other words, over what period of years had you been working with one or more attorneys on the prosecution of patent applications?

A. Well, I think the first patent was issued to me about 1915 and the last patents I think that attorneys applied for for me were filed about 1930.

Q. Then, for about 15 years you have been interested in and engaged in and experienced in the prosecution of patent applications, up until 1930.

A. No; that isn't true. I was very inexperienced. I would say, during that entire period. Most of it seemed a rather black art to me but I began during those latter years to feel that I knew something about some phases of it, enough at least, with the aid of the rules of practice of the Patent Office, to be reasonably safe.

Q. Are you still prosecuting your own patent applications?

A. I am now. However, if I run into a difficult situation or one that I feel is beyond my knowledge, I occasionally ask the advice of an attorney that I

(Testimony of LeRoy J. Leishman.)

believe to be competent or else I make a rather exhaustive search of the particular point involved.

[80]

Q. Apparently from the record you prosecuted the application for the reissue of the patent here in suit in your own name, without an attorney. Is that what happened?

A. I filed the reissue application myself. However, I obtained counsel on some of the matters pertinent to the reissue.

Q. The name of that counsel does not appear in the proceedings, is that correct?

A. That is correct.

Q. In connection with the filing of these disclaimers, did you take that action relying on yourself as your attorney or did you consult an attorney?

A. No; I consulted an attorney in regard to the disclaimers. I drew them, however.

Q. You drew them yourself? A. Yes.

Q. So that the court will correctly understand the situation, the reason that you undertook to act as your own attorney in these matters before the Patent Office, starting with the first applications and reaching up to the patent in suit, was because you were convinced you could do a better job than the average patent attorney, isn't that correct?

A. No; that is not true. I felt that I could do a better job than the cheaper attorneys that I could afford and I felt that I could do an acceptable job if I used reasonable care. [81]

(Testimony of LeRoy J. Leishman.)

Q. What was the first intimation you had or the first thing that prompted you in your mind to consider the necessity of reissuing your Patent No. 2,108,538?

Mr. Flamm: Just a moment. I don't know whether this is proper cross examination or not. We didn't get into this matter of reasons for the reissue because, as a matter of fact, the issuance of the reissue, of course, is *prima facie* evidence of its validity. Now we are going into the matter of breaking it down, and I think it is up to the defendant to put on his own testimony first as to that.

The Court: What difference does it make whether he examines him under cross examination, where we are trying the case without a jury, or whether he calls him as his own witness under the equity rules?

Mr. Flamm: That is perfectly satisfactory.

The Court: The main thing is to get the facts out. This court is always liberal in permitting parties to reopen their case. Technically, you are perhaps correct but as a matter of practice I don't see what advantage could be gained in this case.

Mr. Flamm: No; I don't, either.

A. Will you read the question again?

(Question read by reporter)

A. The conclusion to reissue that patent resulted from considering various factors pertaining to it, the first of which was brought to my attention in an interview that I had [82] in Cincinnati with

(Testimony of LeRoy J. Leishman.)

some members of the firm of Allen & Allen, of which Mr. Youngblood, of counsel here, is a member, and with an engineer of the Crosley Radio Corporation. [83]

Q. By Mr. L. S. Lyon: Can you state the approximate date of that interview?

A. It was the latter part of March, 1938.

Q. What occasioned that interview?

A. I had served a patent infringement notice on the Crosley Radio Corporation immediately after the issuance of my patent.

Q. Do you mean by your patent the patent—

The Court: Just refer to these as the original and the reissue.

Mr. L. S. Lyon: Yes.

A. The original patent,

Q. The original, on which the reissue was granted?

A. Yes, I served an infringement notice on them regarding that.

Q. Accusing them of infringing that patent by manufacturing and selling the same tuning device as you are accusing in this case, for the infringing of the reissue patent? A. That is true.

Q. Then, before that interview, you were aware that the Crosley Company was manufacturing and selling that device, is that correct?

A. That is correct.

Q. Now, will you proceed? I interrupted you for which I am sorry. [84]

(Testimony of LeRoy J. Leishman.)

A. I think I answered your question. You asked what was the first thing that led up to my concluding to get a reissue and that was the first thing.

Q. You had sent a notice of infringement of your original patent to the Crosley Company and you went to Cincinnati to discuss that matter with the attorneys representing the Crosley Company and one of the engineers of the Crosley Company, is that correct?

A. Yes. There was quite a little bit of correspondence intervening in that period but finally I went there as a result of some negotiations or arrangements that I initiated.

Q. At this meeting did not the representatives of the Crosley Company point out to you certain reasons why in their opinion the device here in issue did not infringe your original patent?

A. That is right.

Q. Do you remember what those reasons were?

A. They contended that the various elements mentioned in claim 5 read on different parts of their mechanism more than it had ever been my idea previous to that time.

Q. Read on different parts of your drawing of your original patent? A. That is true.

Q. Can you explain in detail by reference to the patent just what you are referring to? [85]

A. Yes. Will someone hand me a copy of either of the patents?

(Testimony of LeRoy J. Leishman.)

The Court: I want to follow mine. That refers to the original, does it not?

A. Yes. However, claim 5, the one under consideration at that time, appears with the same numbers in both the original and the reissue. There was no difference of opinion, as I understand it, as to what the rocker was, having two arms, each extending on a different side of the shaft. That was this element.

Q. By Mr. L. S. Lyon: Wait just one minute, Mr. Leishman, before we leave that. Will you point out on the drawing, Figure 1 of the patent, where the rocker extends on either side of the shaft?

A. On Figure 1 here is the rocker that extends on that side of the shaft or axis and here is where the rocker extends on the other side of the axis, with a sort of teeter-totter arrangement, part of it on one side of the fulcrum or axis and part on the other side.

Q. The phrase in the claim that you just read from does not refer to either side of the axis? It says two opposite sides of the shaft, does it not?

A. All right. Here is the shaft. There is one side of the shaft and here is the other side of the shaft. So we have arms on either side or opposite sides of the shaft.

Q. As to this word "extending", do you attach any [86] significance to that word "extending" as meaning any different from such a word as "lying" on opposite sides of the shaft?

(Testimony of LeRoy J. Leishman.)

Mr. Flam: I don't know how far we can go in asking a witness on the stand to interpret a claim.

Mr. L. S. Lyon: I am not asking him to interpret a claim. I am asking him for the meaning of a word.

Mr. Flam: You are asking him very definitely what his interpretation of that claim is.

The Court: The only thing is that the court is very much interested in ascertaining wherein claim 5 was considered as not patentable, so as to abandon it; in other words, that it was too broad a claim. I am frank to say that in studying these claims I haven't been able to get much out of them and I am interested in anything that any of the attorneys can bring out or any of the witnesses can bring out to help me in understanding the claims set forth in these patents. And for that reason I would like Mr. Lyon to go ahead and see what he can develop with this man who is the man that phrased the very language used here and made these claims. He didn't depend upon an attorney but drew them himself. And I don't know anybody that is in a better position to explain what is meant by them than the witness himself. I also feel that the witness is probably able to take care of himself because I have watched his method of answering questions and I notice that he is very deliberate and obtains [87] a full understanding of a question before he answers it. So I don't believe there is much danger in leading this witness astray.

(Testimony of LeRoy J. Leishman.)

Mr. Flanagan: I didn't mean that, of course. But I wondered how far we could go into an interpretation of the patent.

The Court: We will not go too far but proceed.

Q. By Mr. L. S. Lyon: The point of the question, Mr. Leishman, that is unanswered is the phrase that we are calling attention to in claim 5, to-wit: "said rocker bar having two arms, each extending on a different side of the shaft." I will ask you to notice that the references to the rocker bars extending on a different side of the shaft are not on a different side of the axis of the shaft.

A. It says "rocker bar"?

Q. Yes; the rocker having two arms. On the drawing here that accompanies your patent you will point out what portion of the arms extend on opposite sides of the shaft? It is only their extremities, is it not, where they overlie or overlap the shaft?

A. No; I don't think that is true. I think we can say that.

The Court: Just a moment, Mr. Lyon. As a matter of information, isn't that language understandable to a layman and means that both sides of this rocker extend, so that a person can understand what is meant? [88]

Mr. L. S. Lyon: If your Honor please, I am leading up to what your Honor is going to have to consider. I am going to hand one of these to the witness and hand one to your Honor. We have attempted to draw a parallel of the various claims so

(Testimony of LeRoy J. Leishman.)

that your Honor can readily see what changes have been made in the different elements in reissuing this patent, to change the language.

The Court: I am going to keep quiet, then, and let you go ahead.

Mr. L. S. Lyon: And I call your Honor's attention on this element, which is No. 1 as it appears in claims 5, 7 and 8, to the fact that it calls for a rotatable rocker mounted on a shaft oppositely connected with said mechanism, said rocker having two arms, each extending on a different side of the shaft, whereas, in the reissue claims 9 and 10 the word "extending" has been eliminated and the word "lying" has been put in there. Apparently it was intentional to compute some different meaning or some different scope for the claim. And also in claim 11 the word "lying" has been substituted for "extending". I am trying to call the witness' attention to the fact that, if the word "extending" means "reach" the side of the shaft, that is shown in his drawing by the fact that the arm does reach and overlap actually opposite the end of the two shafts, whereas, the witness has been talking about the axis in between the shafts. [89]

The Court: Do you mean in between here?

Mr. L. S. Lyon: In between the ends of the two shafts.

The Court: There is no shaft in between there.

Mr. L. S. Lyon: There is no shaft there. So my point is, if you are going to say these two arms

(Testimony of LeRoy J. Leishman.)

extend to the opposite sides of this shaft, the arms must extend beyond the end of the shaft.

Q. Was that matter discussed at the meeting of the Crosley Corporation?

A. No; that matter didn't come up at all. And I think that the interpretation that you put on there is a rather technical one and would not occur to anybody. I think a layman's interpretation of what is meant here would be true.

Q. Do you remember why you substituted for that word "extending" in claim 5 the word "lying" which appears in the reissue claims 9, 10 and 11?

A. I don't remember why but I would regard them in general as being practically synonymous. I try to change my wording around a little and not confine myself to a definite one on which someone might pin a definite meaning.

Q. Isn't it true that you substituted the word "lying" in claims 9, 10 and 11 so as to eliminate any possibility of the word "extending" being held to be restricted to the meaning which I have just previously explained that occurs [90] to me for the word "extending"?

A. No; I didn't have anything like that in mind at all because I think the original wording broadly interpreted would cover that. When you are dealing with forces on opposite sides of any pivot point or fulcrum or whatever you call the point around which it turns, this is one side and that is the other side and this, I would say, was one side of the shaft

(Testimony of LeRoy J. Leishman.)

and that was the other side of the shaft, whether the shaft was there or whether or not it was just an axis running through. The earth rotates on its axis but there isn't any shaft through it.

Q. My point is that the phrase in the claim does not refer to the axis but says that the arms are extending to opposite sides of the shaft, and that in the reissue claims 9, 10 and 11 for some reason you substituted the word "lying" for "extending" to the opposite sides of the shaft. Can't you remember why you made that change?

A. I doubt if I even noticed that I was making a change because in my estimation then and now and I think always I would say that this was one side of the shaft and this the other side, whether the shaft runs through or not. The shaft merely serves as a pivoting point.

Q. Before we leave that point, in claim 5 I call your attention to the fact that the phrase in the claim reads "of a rotatable rocker mounted upon a shaft operatively connected with said mechanism", and that the antecedent for [91] said mechanism is the preceding phrase in the claim; to-wit, "the tuning mechanism of a radio apparatus".

The Court: Where are you reading from?

MR. L. S. Lyon: Claim 5, your Honor. The second phrase of claim 5 says, "a rotatable rocker mounted upon a shaft operatively connected with said mechanism", and the antecedent for said mechanism is in a preceding phrase in the claim, which

(Testimony of LeRoy J. Leishman.)

says, "the tuning mechanism of a radio apparatus."

Q. That refers, does it not, Mr. Leishman, to the fact that the rocker is connected with the shaft S and the shaft S, in turn, is defined as operatively connected with the tuning mechanism of the radio apparatus?

A. No; I think that is a far-fetched interpretation. I intended only a simple interpretation. Obviously it is necessary that the rocker be operatively connected with the radio set; and whether or not there is a shaft in between or whether it is directly connected is rather immaterial. In fact, the specification says so.

Q. I am referring now to the actual showing of the patent that responds to that language of the claim. That language of the claim refers to the fact that the rocker 48 is mounted upon the shaft S and the shaft S is connected to the condenser for tuning the radio.

A. The claim does not necessarily say that. The rocker is operatively connected with the mechanism. [92]

Q. Do you read in that claim that the phrase "operatively connected with any mechanism" modifies the noun "rocker" and not the noun "shaft"?

A. Yes; that is the thing it would have to mean because, without the rocker the shaft could not accomplish any purpose. It is the rocker you have got to connect up with the radio set, not the shaft.

(Testimony of LeRoy J. Leishman.)

Q. Mr. Leishman, it is true, is it not, that the device as shown in the drawing of the patent, the shaft S is connected to the condenser or tuning mechanism for the radio?

A. That is the means of connecting the rocker to the radio set. You have got to have some means of transmitting motion from the rocker to the condenser.

Q. You are aware of the fact that in the defendant's accused device in this case the shaft, if any, on which the rocker plate is mounted is not connected to the mechanism for tuning to the radio? Are you not familiar with that fact?

A. Well, that all would get down to a discussion of what the word "shaft" means; but the rocker is certainly connected with the tuning mechanism of the set by means of these gears, and it is the rocker that has got to be connected. Whether or not you have a shaft to transmit the motion or something else, is unimportant, but the rocker must have a pivot. I would say that it was pivoted upon a [93] shaft, but here the screws are acting as a shaft.

Q. But the screw is not connected to the condenser? A. No; but the—

Q. And does not operate the condenser for tuning the radio; you recognize that, do you not?

A. I recognize that, but the rocker is connected with the radio set and that is obviously the thing you have got to connect up. It is the rocker that you are positioning in order to get the motion transmitted to the condenser.

(Testimony of LeRoy J. Leishman.)

Q. When you came to reissuing your patent after seeing the accused Crosley device you modified that language in claims 9, 10 and 11 by eliminating the limitation that the shaft is operatively connected with said mechanism, the latter referring to the tuning mechanism, did you not? I call your attention to the diagram of the claims, first, that I have just handed you.

A. I may have eliminated those words, I don't know. They all seem to refer to rather unimportant details of the invention.

Q. Will you just take and see if you did not eliminate that limitation?

The Court: Where are you referring to on this?

Mr. L. S. Lyon: This clause here says: "a shaft operatively connected with said mechanism." Now, as I pointed out, the shaft operates the condenser. In claims 9 and 10 it says: "a rotatable rocker comprising two [94] shoulders lying on opposite sides of the axis of said rocker;" and that language or limitation that it is mounted on a shaft which shaft operates the tuner has been eliminated, thereby eliminating any question as to that limitation. [95]

Q. You notice that, do you not?

A. And I notice that the words "mounted on a shaft" is not in those particular claims that you are calling my attention to because it is an obviously unimportant detail; but 7 and 8, I would like to call your attention to, have that phrase included.

(Testimony of LeRoy J. Leishman.)

Q. Yes. Can you tell us why you eliminated that phrase from claims 9, 10 and 11 in filing your application for reissue patent?

A. I don't know exactly why but I can see that the wording is much better phrased.

Q. Well, it is broader, isn't it?

A. No. No.

Q. It eliminates a distinction between original claim 5 and the accused Crosley device—by "distinction" I mean a possible distinction—does it not, whether you agree with the distinction or not?

A. I think that is a very immaterial distinction. We eliminated it was mounted upon a shaft, but it is unimportant to the invention whether it is on a shaft or not. It has got to be pivoted on something.

Q. Mr. Leishman, I am going to urge you to be as frank as you can with the court in connection with accounting for why certain features of original claim 5 have been modified or eliminated in writing certain of these reissue claims. So far we have touched on two of them and you say [96] you can't account for them. I wish you would search your recollection as to the circumstances under which these claims of the reissue patent were written, because these things did not just happen to happen; it must have been done for some reason. Did you write these reissue claims yourself?

A. Oh, yes; I wrote them all myself, no assistance.

(Testimony of LeRoy J. Leishman.)

Q. Did you have any suggestions from anyone or did you consult with any attorney about them?

A. No; I did them myself and—

Q. Was your purpose in writing these reissue claims to be sure that the claims of your reissue, your new claims, would read upon and cover the Crosley device which you had seen in Indianapolis and discussed there?

A. No; not necessarily.

Q. By the Court: What do you mean by "not necessarily"?

A. I had also seen by that time another device and I could see that my original wording of the claim 5 was too broad.

Q. Too broad for what purpose?

A. They called my attention to the fact that there was a certain ambiguity in the claim, at least they had attached a certain meaning to one of the elements of the claim that I was asked about but haven't had a chance yet to explain; so I could see that there was some possible ambiguity. They spent an hour or so convincing me that it was possible [97] to read one of the elements of this claim differently than I had had in mind.

Q. By Mr. L. S. Lyon: Tell us what that element is. You say you intended to refer to it and haven't had a chance.

A. That is this element here. Your Honor will note that the important co-acting parts of this invention are the adjustable tappet member and the

(Testimony of LeRoy J. Leishman.)

rocker. The tappet member comes in contact with the rocker and positions it. At no time does any other part of this mechanism come in contact with it. It is the tappet that does the work. The tappet has to move through space in a definite path always to engage the rocker in a definite position. And that was the important thing, to have this tappet move through that path and to engage the rocker and to have the tappet movable so that it could be adjusted to any angular position; and that was what I regarded as the essence of my invention, those two parts and the particular features of those parts.

Q. By the Court: Now, see if I understand. You claim the essence of your invention was, first, the rocker?

A. The rocker and the tappet and the

Q. You call this the tappet?

A. Yes; that is the tappet.

Q. The tappet which engages the rocker and comes to finally a definite position?

A. Yes. You might say, however, so that we won't have [98] any unnecessary misunderstandings between us, that I might call this a tappet or a positioning means; but that is the important element that co-acts with this rocker to turn it to a particular position.

Q. That is, the tappet and the rocker, the combination of those two are the important elements of your patent?

\* A. That is true, your Honor; and the fact that

(Testimony of LeRoy J. Leishman.)

in the tuned-in position they are coaxial. That is necessary for a smooth-working device.

Q. Then, there is no claim of invention as far as the lever is concerned?

A. Oh, no. That is similar.

Q. And none in so far as the adjusting of the pivot is concerned?

A. No invention in that in itself. Of course, in making an invention you always have to combine various parts; wheels, levers, gears, plungers and pulleys and so on. The invention is supposed to lie in the particular combination of things.

Q. I know, but as far as the pivot is concerned, wasn't it also essential that that be controlled so as to be set in a certain position so that you would have a definite place for the tuning in?

A. Yes. Yes; that is true and this screw clamping means was a part of that mechanism to hold it in place.

Q. Do you claim your invention covered the clamping [99] means?

A. Not by itself. In combination with these other parts, with these particular other parts, that would be a part of the invention.

Q. I notice the clamping means in this is particularly similar to that which is in the Zenith?

A. That is true. I don't claim any.

Q. And your levers are very similar?

A. That is correct, your Honor, and I don't claim any invention in that.

(Testimony of LeRoy J. Leishman.)

Q. And your pivot is somewhat similar, is it not?

A. Yes; there are probably some similarities.

Q. The main difference between your invention and the Zenith is that one seems to work on an elevator and yours works on a rocker?

A. Yes; but in making my device and in using this rocker it was necessary to have a nice acting and operating device, easily set, to have the axis of the tappet member here, the point around which it turns, in line with the axis of the rocker in the tuned-in position so that they will turn as a unit.

The Court: May I have Exhibit 8?

Q. Now, referring to Exhibit 8, we have, the rocker but the pivot is entirely different, is it not?

A. No. I will use one of these middle ones. Here is the tappet member turning on a pivot. [100]

The Court: Yes.

A. It may be different in shape—

The Court: Well, I know.

A. —but it operates in just the same way. When you push this down the axis of the positionable member, or I mean the axis of the cam of the tappet member is right in line with the axis of this treadle bar. That is an important feature. You will notice they are right in line.

Q. I noticed on this it says "other patents pending." Did you have other patents pending on this or did the manufacturer have other patents?

(Testimony of LeRoy J. Leishman.)

A. The Quality—no; the Warwick Manufacturing Company had a patent pending on some features of this, and as part of their damages for previous infringement they assigned that patent to me. So I own now an additional patent application covering certain features of this device.

Q. What features were they?

A. It had to do with the fact, one thing—of course, one patent includes a great many features sometimes—that patent had to do with using the—

[101]

Q. Plunger?

A. Using the screw, using the screw that clamps the cam or tappet member in adjustable position as the thing on which you would push.

Q. As I understand, your testimony is to the effect that No. 8, the manufacture was commenced after the placing on the market of the No. 10 exhibit? A. Yes; that is true.

Q. And generally speaking, they are very similar, aren't they?

A. Yes; they are, and particularly in the fact that they embody the idea that I introduced into automatic tuning of having this tappet device coaxial with the axis of the rocker.

Q. By Mr. L. S. Lyon: May I ask you, Mr. Leishman, do you claim that you were the first one in a radio tuner of this general type to use a pivoted tappet to engage and operate a rocker or plate for tuning the device?

(Testimony of LeRoy J. Leishman.)

A. No. I thought I was when I applied for my original patent but I found out that—that—that my claim 5 would cover that sort of a device, but I found out it was probably a little too broad; I hadn't invented as much as I thought I had. So I got a reissue up in which claims 7 and 8 particularly are identical to claim 5, excepting for qualifying and limiting phrases that narrow it. My general statement was too broad so I qualified it and limited it so [102] as to include the particular features of the rocker and of the tappet and their manner of co-acting, instead of just claiming them broadly as I had done in claim 5 originally.

Q. By the Court: Then, do I understand that there was a previous patent that covered a pivot and rocker similar to these? A. Yes.

Q. Generally speaking?

A. Yes; it had some similarity and that was the reason that I disclaimed claim 5. There were points of difference all right in claim 5 and there were also points of similarity; and I decided that if there was any question about claim 5 that I would resolve the doubt against myself.

(Short recess.)

Q. By Mr. L. S. Lyon: You have referred to discovering an earlier patent prior to your invention which showed the use of a cam or tappets for actuating a plate or rocker. I hand you a copy of patent No. 2,072,897, granted March 9, 1937, on an

(Testimony of LeRoy J. Leishman.)

application filed January 3, 1930, to Henry E. Marschalk, Jr., of East Orange, New Jersey. Is that the patent to which you refer?

A. Well, I would like first, if there is no objection, [103] to finish answering a question you asked me awhile ago. You wanted to know about the interpretation that the Crosley Corporation put on my device and I have not yet had a chance to refer to that interpretation.

Q. We have quite a few unfinished things here. You can finish whichever you want to first, as far as I am concerned.

A. I would like to finish with that particular thing we got started on, if there is no objection, your Honor. Now, this element of the claim that was the point of the discussion in Cincinnati has not come up yet: "Means movable about a pivot and acting upon operation in one direction to slidably engage either arm of said rocker and push it in one direction to an angular position at which the movement of said rocker is arrested by the collision of said means and the oppositely moving other arm of said rocker"; I was asked what I meant by this terminology when I drew the claim and this was the "means movable about a pivot", in my estimation, that is the part that co-acts with the rocker here. The part that is movable about a pivot.

Mr. Flam: Will you refer to it by name?

A. That is the pivot and tappet, tappet or positioning means 61 in the drawing. I am moving it

(Testimony of LeRoy J. Leishman.)

about a pivot. Now I will tighten that up and it has to be movable about a pivot so that you can adjust it to get it in any angular [104] position. Now I am moving it down. It states here in the claim: "and acting upon operation in one direction". The direction is going to be down. I am moving it down until it engages either arm of the rocker. I will let it engage this arm and push it in one direction, that is, pushing it on in this direction to an angular position "at which the movement of said rocker is arrested" or stopped "by the collision of said means"—the means here—"and the oppositely moving other arm of said rocker". We have that.

Q. By Mr. L. S. Lyon: Just one question: While it is so acting to actuate the rocker the tap-pet must be locked and so that it is not movable about a pivot?

A. During that time it has got to be locked, but it has got to be movable about the pivot so that you can adjust it to any angular position. During that time it has got to be movable about a pivot so that you can adjust it to any angular position. I was asked what led me to get a reissue. The Crosley Corporation, that is, their attorneys and Mr. Yungblut, of counsel here, were present when this interview took place in Cincinnati, and he said that the means movable about a pivot was this whole arm here. That arm merely serves as a guide. This part has got to move up and down or in some very definite path so that it will always come to the same

(Testimony of LeRoy J. Leishman.)

final position in relation to the rocker. It doesn't make any difference whether that path [105] is an arcuate path or up and down. So long as it comes down here to that position is what counts. The interpretation that that claim could be considered in such a way that the means movable about a pivot would be that whole thing was a conception that was very hard for me to see. In fact we had discussed that in a little previous correspondence. On March 9th I sent this letter to the Crosley Corporation, which was just a part of some correspondence that was then going on. On March 11th the Crosley Corporation said that they couldn't use my device because they had to use a push button. On March 12th I wrote them this letter, showing that I considered that that was entirely an irrelevant matter. The substance of the letter is that it doesn't make any difference whether the means movable about a pivot is mounted on a lever or a push button or what.

The Court: I think those letters should be marked as exhibits in the case.

Mr. Flam: We will offer them in evidence.

Mr. L. S. Lyon: If you desire to offer them, you may do so.

Mr. Flam: I will offer a carbon copy of a letter, dated March 9, 1938, in evidence, addressed to the Crosley Radio Corporation, Attention Mr. Louis M. Crosley; also a letter, dated March 11, 1938, addressed to Mr. L. J. Leishman and signed "The

(Testimony of LeRoy J. Leishman.)

Crosley Radio Corporation, Louis M. Crosley"; and a carbon copy of a letter dated March 12, 1938, addressed [106] to the Crosley Radio Corporation, Attention Mr. Louis M. Crosley, which the witness testified was sent by him.

The Court: They may be admitted in the order offered.

The Clerk: Plaintiff's Exhibits 14, 15 and 16.

Q. By the Court: Mr. Witness, tell me why was it that the claim of infringement was only based upon claim 5?

A. Claim 5 was the only one that they infringed. That is usually the case, to make a claim only on the ones infringed.

Q. In other words, according to your contention, this device, marked Plaintiff's Exhibit No. 10, only infringed your claim 5?

A. Yes. In each claim of a patent you describe different combinations of parts that constitute an embodiment of your invention. There might be a large number of claims and often suits are brought just on one claim or they pick out particular claims that are infringed; and that is the particular claim or the particular combination of parts from my view that happened to be infringed by the Crosley device and on that the infringement was based. Often it is just one claim in a patent or they may be all thrown out but one. So that was the pertinent claim in this case and that was the one upon which the charge of infringement was based: I might say, in continuing the answer to that question as to what

## (Testimony of LeRoy J. Leishman.)

caused me to get the reissue, that when this conversation took place in Cincinnati it took about an hour for Mr. [107] Youngblut and another attorney and an engineer from the Crosley Radio Corporation to explain that it was possible to put such an interpretation on the claim because it seemed perfectly obvious to me I would be claiming the co-acting members and that is what I had in mind. So I told them that was an important point and that I would consult an attorney about that matter and, if it was possible to put any such interpretation on the claim, and if I wasn't entitled to either interpretation, that is, I mean both, either one or the other which might apply, I would take whatever legal steps I could to remedy the situation. And the other attorney, not Mr. Youngblut but another member of the firm of Allen & Allen whose name I don't recall, stated that, if I filed a disclaimer to correct it, I would have to be careful; that it would be a limiting disclaimer. And he further gave me some caution on the matter. And, when I returned to Los Angeles, I discussed that claim with Mr. Flam and he also thought that the other interpretation was not justified. But he says, "You might clarify the whole matter by getting a reissue and getting them to put in some claims in which there is no chance for that interpretation." I had read up on reissues in the meantime, and I says, "I will get some claims in there that are definitely narrower so there will be no question but what it is a narrowing re-

(Testimony of LeRoy J. Leishman.)

issue." So in preparing claims 7 and 8 I followed the terminology almost verbatim of claim 5, putting [108] down only limiting terminology and qualifying phrases to remove that ambiguity and to definitely narrow the claim rather than to broaden it.

I am finished answering that question.

Q. By Mr. L. S. Lyon: Then, if I understand you correctly, what you were attempting to do by the reissue was to eliminate any possibility of your reissue claims being held limited to the construction which Mr. Yungblut and the others present at the Cincinnati meeting contended was the proper construction of claim 5, as to the point that you have referred to in your testimony, is that correct?

A: No; that is not correct. It wasn't a matter of not wanting it to be limited to that. I didn't think I was ever limited to that kind of construction or interpretation, in the first place. But I decided that I would get a reissue that would be a narrowing reissue and that would include these same parts and that I would describe them with a little greater particularity and that in wording those claims I would be accurate enough in my terminology so that it wouldn't be possible for anybody to put a misinterpretation on what I meant by the words describing those parts.

Q. By the Court: Do I understand that your explanation, then, of the reissue is that portions of claim 5 brought about two interpretations of certain language used in there; in other words, there were

(Testimony of LeRoy J. Leishman.)

contentions that it meant a different thing than you thought it meant or intended it to [109] mean? Is that true?

A. Yes. The Crosley Corporation put a different interpretation on it than I had intended or than seemed to be natural that anybody ordinarily would place upon it.

Q. And then you filed a reissue and redefined, in a sense, the same claim that you had in claim 5 except that it was your intention to eliminate the uncertainty?

A. Yes. And, while I was about it, I narrowed it so far as claims 7 and 8 particularly were concerned. In those particular claims I felt that there couldn't be any question of them being narrower because I followed just about the same terminology but added qualifying phrases. Instead of saying "all horses", I got it down to a little greater particularity, to "white horses", to give a rough illustration.

Q. In what way do you feel that you narrowed your claim? Of course, when you speaking of narrowing it, you mean you narrowed it from the original six claims set forth in your original issue, do you not?

A. No. This had only to do with claim 5. The other claims were all repeated.

Q. Of course, when you disclaimed claim 5, that was out?

A. Well, it hadn't yet been disclaimed. Whenever you get a reissue, your Honor, if it is going to be a narrowing reissue, because you figure that

(Testimony of LeRoy J. Leishman.)

some claim is broad, you might say that it would be possible that the original claim [110] that you had would naturally be out because the reason you get the reissue is to get something in a little more specific; and, if you didn't want it more specific and had it worded just the same as you had it in the first place, it would have exactly the same terminology, you might say, and be exactly the same patent.

Q. But the six additional claims in your reissue were drawn up with the thought in mind that they would cover the things that you had intended to cover in No. 5, is that right?

A. That is right; in a little greater particularity and a little greater detail rather than taking in all of the broad scope that claim 5 took in. Claim 5 would cover any kind of a tuner with pivoted positioning means in and any kind of a rocker plate, and I defined this with greater detail and a little greater particularity and specified that the axis of the tap-pet member had to be coaxial with the axis of the rocker, and in that way I confined it to that type of mechanism as distinguished from all of the broad mechanism that the original terminology might have included. That is about the only way you can narrow anything, narrow a statement or anything else, is to specifically define it.

Q. By Mr. L. S. Lyon: You recognized, did you not, at the meeting in Cincinnati and before you applied for your reissue patent that, if claim 5

(Testimony of LeRoy J. Leishman.)

was to be held to the interpretation for which Mr. Yungblut and the Crosley [111] representative contended at the Cincinnati meeting, claim 5 so interpreted would not cover or be infringed by the Crosley tuner?

A. No; I wouldn't say that that would be true, either, because, even as interpreted, as the Crosley Corporation interpreted it, it would read on it through the doctrine of equivalents, that is, if the pivoted means was a lever, you could substitute for the lever a plunger or anything else that would serve the same function and it would come within the scope of the same patent.

Q. Did not the representatives of the Crosley Company at that meeting and Mr. Yungblut contend that the Crosley tuner did not infringe the claim because of the limitation which they pointed out and urged should be construed to be in the claim? A. Yes; that is true.

Q. So you knew before you applied for your reissue that the Crosley Corporation was contending that the reference in the original claim 5 to means movable about a pivot referred to the lever that was movable about the pivot Q and contended that the claim should be so construed and, therefore, it was not infringed by the Crosley tuner? You knew that, did you not?

A. That is a rather long question. May I ask to have it repeated?

Mr. L. S. Lyon: Read it to the witness, please.

(Testimony of LeRoy J. Leishman.)

(Question read by reporter.)

A. Yes; I knew that was their contention and position.

Q. Isn't it a fact, aside from any intention you had of narrowing the new claims that you added by the reissue application, that one of the purposes of the reissue, one of your purposes, was to so modify the language in this discussion with the Crosley representatives about it of claim 5 that you could eliminate that question of non-infringement?

A. I think I can say yes to that question.

Q. Isn't that the reason that in claim 7 you did modify that language? We will now look at this comparative analysis chart that I have here of the claims. You will notice that claim 5, element No. 2 of claim 5, reads "means movable about a pivot" and in claim 7 that language is changed to read "means adjustably movable about a pivot." The purpose of that was to direct that element of the claim to the tappet as distinguished from the pivot. Q. isn't that correct?

A. I would say that substantially that is correct. I figured, if I stated "adjustably movable about a pivot", that that would not be possible of any misconstruction. And I also realized that, when I added the word "adjustably", I was confining this type of motion to the adjustable movement rather than any other kind of movement. I wasn't concerned with anything else. So I limited it from the [113] broad.

(Testimony of Lekoy J. Leishman.)

term "movement" to "adjustable movement about a pivot".

Q. By the Court: By "means movable about a pivot" what do you mean? A. This part here.

Q. By Mr. L. S. Lyon: That was what the point of your argument with the Crosley representatives was, wasn't it?

Q. By the Court: What do you mean by "means adjustably movable about a pivot"?

A. You move it for adjustable purposes. We are not concerned with any other type of movement other than that which takes place when you adjust it, that is, in that part of the claim we are not.

Q. By Mr. L. S. Lyon: Referring to the next change in the same claim 7, as compared with claim 5, claim 5, after calling for "means movable about a pivot", and reading down to the next part of the claim, says, "and acting upon operation in one direction." You changed that language, when you came to claim 7, to read, "and acting upon bodily movement in one direction", did you not?

A. Yes.

Q. And the purpose of making that change was the same as the purpose in adding the word "adjustably" to the preceding clause, so that that element of the claim would necessarily refer to the tappet and not to the lever pivoted at Q? That is correct, is it not? [114]

A. Secondarily, it is. Primarily, I wanted to define the movement in more detail and more specifi-

(Testimony of LeRoy J. Leishman.)

rally. In one claim, claim 5, I said, "and acting upon operation in one direction". That was downwardly. The Crosley Corporation said I meant this. In claim 7 I said, "and acting upon bodily movement in one direction." So that meant that that part had to move bodily in one direction. So I used that terminology to define the movement a little more accurately and I thought in so doing that I wouldn't make the same possible error that I had made before, leaving it open to a possible misinterpretation. So it was worded with that very wording.

Q. Just for the sake of clarity, will you carefully state and point out to the court how this language of claim 5, reading, "means movable about a pivot and acting upon operation in one direction to slidably engage either arm of said rocker", was read by Mr. Yungblut and the Crosley representatives at the Cincinnati meeting to refer to and call for the presence of the lever pivoted at Q and how the language of claim 7, containing the changes that you added to this phrase, can not be so read? Have you the question in mind?

A. Yes; I think I have. In claim 5 I was asked, first, to read it according to the interpretation that the Crosley Corporation finally convinced me was possible to place on it. We are only concerned with this particular [115] member and its movement. So perhaps I may leave out the first part of the claim. [116]

(Testimony of LeRoy J. Leishman.)

"means movable about a pivot". They said that was the entire arm here, the pivot being this rod in the back, "and acting upon operation in one direction", by which they meant this direction, downwardly, "to slidably engage either arm of said rocker." They said it engaged either arm of the rocker; that this means here did, "and push it in one direction to an angular position at which the movement of said rocker is arrested by the collision of said means." The means in this case now, according to the Crosley interpretation, is the lever, "and the oppositely moving other arm of said rocker." That was the interpretation that they placed on it, ignoring more or less the tappet. In Claim 7 the corresponding wording is "means adjustably movable about a pivot", which I at that time thought could only refer to this.

Q. By Mr. L. S. Lyon: To the tappet, not the lever?

A. Yes. However, if we want to get into technicalities, I find that any kind of a movement can be called adjustably movable, but I was putting an ordinarily accepted meaning on the terminology, "and acting upon bodily movement in one direction". That could still refer to either according to the Crosley terminology but, as applied to the tappet, bodily movement would be downward, which it is in a definite path because it is confined by this axis by means of which it is pushed down. Any movement in a machine has got to be confined and

(Testimony of LeRoy J. Leishman.)

guided in a definite path and I used [117] "lever" in my case.

Q. Didn't Mr. Yungblut or one of the Crosley representatives at that meeting in Cincinnati, in support of their position that that portion of original claim 5 which we have been discussing refers to the lever pivot at Q, point out that the claim when read fully, particularly that portion reading "means movable about a pivot and acting upon operation in one direction to slidably engage either arm of said rocker", implied or required that, whatever the pivoted means was, it should be movable while the device or means was acting on the rocker? Wasn't that the reason that they gave you at the meeting for insisting that the claim was limited in the manner they stated?

A. I don't remember but possibly they did. However, I notice that in other claims drawn for the Crosley Radio Corporation they are using the same general terminology that I used, "movable about a pivot", to refer to the tappet. When I use it, it means one thing and when they use it it means another.

Q. We will come to that later. But, to read into original claim 5 the phrase "means movable about a pivot" as referring to the tappet, you must read the claim as speaking of the elements at two different times, must you not? For the tappet to constitute "means movable about a pivot" that element must be referring to the tappet at the time when it

(Testimony of LeRoy J. Leishman.)

is unlatched or unlocked, whereas, the next element [118] of the claim, which refers to the action on the rocker bar, must then be referring to the tappet at a different time, that is, when it has been latched? That is what your interpretation requires, is it not?

A. Certainly, because, when you are operating it, it has got to be locked.

Q. But, if you refer to the claim as speaking of these elements at the same moment, then the claim can only be read on the lever pivoted at Q, as contended for by the Crosley representatives, is that not right?

A. That might be true but I don't see that it is relevant because I don't know that the time in which the exact terminology applies to parts has anything to do with it. That part would not have any function in the device and couldn't be used in the device at all unless it was movable about a pivot. So I specified that very important feature that it is movable about the pivot.

Q. You have stated that, subsequent to the meeting with the Crosley Corporation, and in fact subsequent to the receipt of your reissue patent, you found an earlier patent which you felt compelled you to file a disclaimer of claim 5. I hand you a copy of Patent No. 2,072,897, granted March 9, 1937, to H. E. Marschalk, Jr., on an application filed January 3, 1930. Is this the prior patent to which you have referred in that connection?

(Testimony of LeRoy J. Leishman.)

A. I didn't refer to it in that exact connection.

[119] I didn't say that this would compel me to get a reissue.

Q. No; I said to file a disclaimer of claim 5.

A. No; I didn't feel it compelled me to file a disclaimer of claim 5 at all because the terminology of claim 5 is such that it doesn't read upon this device.

Q. You stated in your disclaimer of claim 5 that you were disclaiming claim 5 because it was too broad and covered something that existed in the art before any invention of yours, did you not?

A. No; I didn't say that. I said that it might be too broad and that it might cover something that I had not invented. I was never certain at all about that matter but I felt that somebody might urge this very point.

Q. It was because of this particular Marschalk patent that you did file a disclaimer of claim 5, wasn't it?

A. Yes; but I didn't regard it as so essential that I needed to file a disclaimer or that that was a complete anticipation.

Q. But you thought you had better do so in view of the Marschalk patent, is that right?

A. No; I didn't think that but I thought it would be very commendable on my part to do so. I thought, since I had other claims that were still good enough, and I specified this in my petition for reissue, that

(Testimony of LeRoy J. Leishman.)

it wouldn't make any particular difference about claim 5.

Q. This Marschalk patent you didn't discover until [120] after you got your reissue, did you?

A. That is right. But in the reissue I stated I wanted to have some claims that were narrower. So, feeling that I had claims that were narrower and were still broad enough and covered everything that was important to the invention, I felt that I might as well disclaim claim 5 so that there wouldn't be any argument at all about the pertinency of the Marschalk patent or any similar reference. I resolved the doubt against myself.

Q. How was this Marschalk patent brought to your attention and under what circumstances?

A. It was cited against another application of mine by the Examiner in the Patent Office.

Q. Didn't you have a discussion with some people in the east concerning the validity of your original claim 5, in which they pointed out that this Marschalk patent was an anticipation and that you must disclaim that claim?

A. No. I think what you are referring to was not any discussion. It was correspondence. That, however, was the thing that caused me to determine or to consider the possible pertinency of the Marschalk reference.

Q. You had some correspondence with Messrs. James & Franklin, at 521 Fifth Avenue, New York City, New York, after the issue of your reissue

(Testimony of LeRoy J. Leishman.)

patent and before you filed the disclaimer of original claim 5; did you not? A. Yes. [121]

Q. And who were they or who were they representing?

A. I think that that firm represented the General Instrument Corporation, on which I had also served an infringement notice of my reissue patent.

Q. And they wrote you, did they not, that your original claim—

The Court: The letters will speak for themselves.

Q. By Mr. L. S. Lyon: I hand you a copy of a letter, dated December 27, 1938, addressed to you here in Los Angeles and signed "M. James". Did you receive the original of which this purports to be a copy?

A. I haven't read that letter.

Q. You certainly will have a chance before you answer.

A. I am willing to state that I received a letter from them. You asked me if I had a discussion and I stated it was by correspondence. I did receive a letter from James & Franklin along the lines that you suggested.

Q. Can you produce that letter?

A. I don't have it here but I guess it would be possible. However, I am willing to read this and specify whether I think it is that letter or not.

Q. All right. Maybe you will accept this copy.

A. Yes; I am willing that that should be considered the letter. I think that is probably a copy.

(Testimony of LeRoy J. Leishman.)

Mr. L. S. Lyon: Do you have any objection to it, Mr. Flam? [122]

Mr. Flam: If it is offered only for the purpose of determining when Mr. Leishman first found out about the Marschalk patent, I haven't any objection.

The Court: If he finds the original and finds any errors, it may be corrected.

Mr. Flam: I think it is probably correct.

Mr. L. S. Lyon: We will offer the letter, which the witness has accepted, as Defendant's Exhibit D.

Q. It was as a result of this letter and shortly following this letter that you disclaimed original claim 5? A. That is correct.

The Court: May I see the letter?

Q. By Mr. L. S. Lyon: Will you point out to the court in Exhibit—Have I offered this Marschalk patent?

The Court: No, you haven't.

Mr. L. S. Lyon: Then, I would like to offer the Marschalk patent, which has been referred to, as Defendant's Exhibit E. Or, we will ask that the previous letter be marked Exhibit C and that this Marschalk patent be marked as Exhibit D.

Q. Referring to Exhibit D, and particularly to Figure 14 of the drawings—

The Court: Just a minute. Let me read this letter before you proceed.

Mr. L. S. Lyon: Very well, your Honor.

Q. Referring now to Exhibit D, the Marschalk

(Testimony of LeRoy J. Leishman.)

patent, [123] and particularly to Figure 14 of the drawings, I have annexed to the exhibit an extra sheet on the front which corresponds to Figure 14 or is an exact reproduction of Figure 14 as to one element, instead of a duplication of elements. Will you point out to the court what, in this structure corresponds to the movable or adjustable cam or tappet and what corresponds to the rocker which we have been discussing?

A. This portion here, marked 34, corresponds to the rocker.

Q. By the Court: This is a side view, is it not?

A. A sort of a cross section, you might say, or end view. And this portion 44 corresponds to the tappet or positioning means that we have been discussing.

Q. By Mr. L. S. Lyon: And that tappet in that device is adjustable and may then be secured in an adjustable position to actuate the rocker to a particular setting, is that correct?

A. Yes; that is true.

Q. By the Court: What was that particular patent to be used for or in connection with what was it to be used?

A. In connection with a radio tuner. Their figures here, if I may refer to them, will show that. Here is this same rocker 34. I am referring now to Figure 13 of the patent. Rocker 34 in Figure 13 is the same as rocker 34 in the enlarged drawing and rocker 34 there is shown [124] operatively con-

(Testimony of LeRoy J. Leishman.)

nected to the tuning mechanism or condenser, the means being this shaft and the gears and so on.

[125]

Q. Where is the pivot or whatever you call it?

A. The pivot in this case is 46.

Q. What do you call this?

A. The tappet.

Q. Where is the tappet in Figure 13?

A. In Figure 13 it doesn't appear but it appears in Figure 14.

Q. Yes; I see it in Figure 14.

Q. And this drawing on the front is substantially the same as Figure 14 only they have removed, for the sake of clearness, some of the extra positioning means, levers and so on, and have confined it.

The Court: This says it relates to a time control apparatus. What does that mean?

Mr. L. S. Lyon: This is one of those radios, I think, or at least, if it is not, it ought to be, so that the radio will go off when the advertising comes on over the air and then it will turn itself on again as soon as the advertising is through, which I think is a great improvement in the art. And the way they do that is by knowing what time the advertising comes on and having the thing set so it will go off during that interval.

Q. By the Court: Is that what this is for?

A. Speaking in the same general facetious vein, it is.

(Testimony of LeRoy J. Leishman.)

The Court: I notice here it says time control apparatus.

Mr. L. S. Lyon: Some of those other Figures are for the [126] timer. Actually this part of the tuner is for tuning the condenser.

The Court: It calls it a time control apparatus.

Q. What does the figure 39 represent on Figure 14? Does that represent the lever the same as that?

A. No. That is the weight to pull the lever back up.

Q. So as to take the place of a spring?

A. That is the idea.

Q. How does this work? Did they have any such thing as a plunger or lever to work this?

A. I think, if we refer to this Figure that the defendant has furnished, it is just about the same as that. This arm here guided the positioning element 44 downward in a definite path. In other words, this whole arm constrained its movement so that it moved downwardly and always came in in the same general position. And this arm was caused to move by this plunger, or, as it is generally called, by a magnet. That is generally referred to as a solenoid and, when the wires in this device here are energized by an electric current, this plunger comes down and brings this lever with it.

Mr. L. S. Lyon: There was a clock in this system so that at a certain time the current would go through this magnet and would then operate this lever and the tappets would actuate the rocker and

(Testimony of LeRoy J. Leishman.)

tune the radio and the radio would go on and you would hear whatever there was to hear; [127] isn't that correct, generally?

The Court: They would use those for an entirely different purpose than this, would they not?

Mr. L. S. Lyon: No; it was the same purpose. It was to tune the condenser. The only difference was that instead of pushing a button, the clock pushed the button or furnished the electricity which pushed the button. In other words, it was automatic; it was operated by a clock, the push button was, instead of by your finger.

The Court: Instead of manually?

Mr. L. S. Lyon: Yes.

Q. That is right, isn't it, Mr. Leishman?

A. That is correct in general. I am not familiar with all the details of the patent but I am familiar with that figure.

Q. But anyhow, the patent did have a tuner for controlling the shaft that operated the condenser of the radio and that shaft carried—what do we call it now?—a rotatable rocker, and that rocker was actuated by an adjustable tappet which tappet had a latch of some kind after the setting so it could be locked in position, and in that way the operation of the tappet against the rocker would bring the radio condenser to a position which tuned the radio; isn't that right?

A. That is true, with the exception of the fact I don't know whether you could call that locking

(Testimony of LeRoy J. Leishman.)

means a latch [128] necessarily; but it had some means of locking up the positioning.

Q. By the Court: It was evidently made so it could be adjusted at a different angle so as to change the position? A. That is it exactly.

Q. By Mr. L. S. Lyon: And, as shown in Figure 14, there was a plurality of these tappets operating on the same rocker, so that by energizing one of the solenoids to operate one tappet you would tune the radio to one station, and by a different solenoid through a different tappet you would tune it to a different station; isn't that right?

A. That is correct.

The Court: Was that patent there ever put in commercial use?

Mr. L. S. Lyon: We have not found out as yet. We haven't any evidence one way or the other.

The Court: If you have a patent that will be able to disengage the radio during the advertising period I am just interested; that is all.

Mr. L. S. Lyon: Those devices were attempted to be manufactured. I do not mean this particular Marschalk device but devices for doing that, and the broadcasting companies found out about it so they changed the time of the broadcast so you could not count on the advertising being at some moment, and then your device was not so good; so it was an idea but the other fellows had an answer to it.

(Testimony of LeRoy J. Leishman.)

The Court: I have two questions in my mind I would like to ask, and I would like to ask of counsel. In the first place, of the defendant: Is it defendant's claim that in this one patent for the first time that form of device was used in the radio art?

Mr. L. S. Lyon: Of course, the Zenith device is of an earlier date than this Marschalk device, but the Zenith device had these two bars that were not actually connected.

The Court: They were not rotatable, I mean on a rocker, but worked on a kind of an elevator?

Mr. L. S. Lyon: On racks.

The Court: Yes.

Mr. L. S. Lyon: Although in effect, as we expect to show, they functioned as a rocker; so the plaintiff says that his device distinguishes from the Zenith device because he has a rocker instead of those two bars operated on those elevators. But we say there is nothing new about that distinction because here is this Marschalk invention which used the rocker instead of the bars and also had the tappets.

The Court: The second question I want to ask is this: What effect does the disclaimer have in this case? My question may not appear very intelligent but I am seeking information. Here you have a patent with six claims; thereafter that patent is reissued into twelve claims; then thereafter there is a disclaimer of claim 5. Does that disclaimer go back to the date and have the same effect as [130] if claim 5 had never been in either one of those pat-

(Testimony of **LeRoy J. Leishman**.)

ents, or are you in this position, that you can claim the benefit of 5 up until the time that there has been a disclaimer filed?

**Mr. Flam:** In many instances of reissues—and Leishman could have done it here—he could have reissued the patent, and omitted claim 5 entirely. That would be the equivalent of disclaiming it. In other words, he is substituting for the broad claim in the original patent one or more narrower claims, and that is the effect of the disclaimer here at the present time.

**The Court:** I do not know that I have made myself entirely clear. Suppose in this case that the manufactured article of the defendant was in truth and in fact an infringement of claim 5, as set forth in the original patent; that thereafter that patent was reissued and claim 5 was retained in there; then thereafter claim 5 was disclaimed and only claim 5 of either patent that was infringed was the one that was disclaimed; what would be your legal position? Do I make myself clear?

**Mr. Flam:** Yes, your Honor. I was trying to explain, of course, that the mere fact that claim 5 is no longer in effect—

**The Court:** Does it wipe it out as if it never had been in effect, then?

**Mr. Flam:** No; not necessarily, it is not wiped out [131] except—it may be wiped out. You can't enforce it any more.

**The Court:** That is laying aside the fact that

(Testimony of LeRoy J. Leishman.)

other claims may, in a sense, cover the same matter. I am disregarding that.

Mr. Flam: Occasions often arise where that thing is done. A claim is too broad, a reissue is applied for, dropping the broad claim entirely and substituting narrower claims. Of course, that is construed as a narrowing reissue, if that is what is on your Honor's mind; that is, the disclaimer does not mean that the original patent must be construed as if it never had the broad claim in it. It did have the broad claim in it and the effect of the reissue is that in place of the broad claim there are narrower claims and no longer is the broad claim effective. There is no hiatus in the attempt of the patentee to cover what he conceives as his invention. First of all, he had a broad claim there; then he thought about it and it was too broad and he would put in a narrower one. He did it by reissue. Then he thought; "If I have these narrower claims I do not need the broad one any more and there is some question of whether it could be re-claimed; so it means virtually that a substitution of narrower claims for the broader one is made. I said that could have been done; in fact, that is one way of disclaiming, to go into the Patent Office— [132]

The Court: Assuming for the sake of the argument there had been an infringement of the broad claim, and not of the narrower ones, what effect would it have after you had disclaimed?

Mr. Flam: That is true, because you are out of

(Testimony of LeRoy J. Leishman.)

court because there is no existing claim that is infringed under such circumstances. You can not rely for infringement upon a discontinued claim or a disclaimed claim, of course.

Mr. L. S. Lyon: The Supreme Court in the Tri-Ergon case which we cited in our pretrial memorandum, in speaking of the effect of a disclaimer, says that it is retroactive and goes back effectively to the date of the original patent.

The Court: What case is that?

Mr. L. S. Lyon: Before the disclaimer.

The Court: What case is that?

Mr. L. S. Lyon: That is the Tri-Ergon case. The exact language on that subject is in page 30 of our pretrial brief, not our reply. The court says, at page 30, that is, the Supreme Court of the United States, that the fly-wheel—

The Court: That is in case of an invalid disclaimer.

Mr. L. S. Lyon: Well, of any disclaimer.

The Court: Effect of invalid disclaimer.

Mr. L. S. Lyon: Yes; but I think that is the effect of any disclaimer in the language. They found that disclaimer invalid, but a patent established by disclaimer [133] just speaks from the date of the original patent. And it says "If respondent could thus, by disclaimer, add the flywheel to the arcuate flexing claim and to the optical claim, he would in effect secure a new patent operating retroactively in a manner not permitted by the reissue statute."

(Testimony of LeRoy J. Leishman.)

In other words, what they are trying to say there is that if you reissue a patent and sue a man for infringement, your reissued patent is effective from the date of the grant of the reissue; but if a man could change his patent by disclaimers he could change it retroactively because the effect of disclaimer is the same as if it had always been in the patent, if it is in there validly at all.

The Court: Proceed, gentlemen.

Q. By Mr. L. S. Lyon: What caused you to file the disclaimer of date of December 10, 1939, to claim 8 of your reissue, by which disclaimer you abandoned everything in that claim except "a structure in which the rocker is so constructed that it may act as a common follower for a plurality of such recited movable means?"

A. Those disclaimers were filed, that disclaimer and the disclaimer in connection with two other claims included in the same general disclaimer, were filed to limit those claims more particularly to my construction again so that it would not be possible to read the claims on anything else that anyone else might try to read them on. I narrowed them [134] to my structure. I felt that they were broad enough with those disclaimers to cover what I had invented and features of my invention, and that there was not therefore any point in keeping them broader. I had read decisions—since you ask me why—I had read decisions to the effect that limiting disclaimers to make certain of the validity

(Testimony of LeRoy J. Leishman.)

of your claims and eliminate from its scope things that were not of your own invention were commended by the courts; so I thought, since the wording was probably a little broader than necessary, that I would so limit them as to confine it definitely to the particular things with which we were concerned, the radio art.

Q. Had you read the decision of the Supreme Court of the United States in the case I just a moment ago referred to, the Tri-Ergon case, where they attempted to limit the claims in the Tri-Ergon patent to a flywheel to avoid prior art that was urged against them? Had you read that case?

A. I had read that. However, I might state that I do not consider myself a good interpreter of these decisions, necessarily, of the Supreme Court or any other case. I try to be familiar with them in general whenever I am going to be concerned with a particular point and to be somewhat guided by them. But I do in general remember that case.

[135]

Q. Now, I am not going to cross-examine you about the case. I was just wondering if you were familiar with it.

A. I would not say that I am familiar with it. I have a little smattering of information about some phases of it.

Q. Before you filed the disclaimer as to original claim 5 you consulted with Mr. Flam, didn't you?

A. Yes.

(Testimony of Leroy J. Leishman.)

Q. And he approved and advised the filing of that disclaimer in view of the Marschalk patent, did he not?

A. No; he didn't say that. He said, "If you think there is any question about it, better to resolve the doubt against yourselves." He says, "You have got claims that are still broad enough, without that broad claim, so you don't need it, do you?"

Q. Did you consult him in regard to this disclaimer of November 10, 1939, before that disclaimer was filed? A. Yes.

Q. The effect of those disclaimers was to surrender anything in claims 8, 9 and 10 as constituting your invention, and bringing you down to the sole point, as far as claim 8 is concerned, of having a plurality of these tappets and operating on the same rotatable rocker; you understand that?

A. No; I don't understand that that was the case.

Q. Do you have a copy before you of the disclaimer of November 10, 1939? [136]

A. I think I do. It is on that back of the patent, anyway.

Q. It says: "Your petitioner hereby disclaims from the scope of claim 8 of said Letters Patent all structure except that in which the rocker is so constructed that it may act as a common follower or a plurality of such recited movable means." It was your understanding and your intention, then, that you disclaimed everything in the claim except that

(Testimony of LeRoy J. Leishman.)

feature of having a plurality of these movable means or tappets and having those act on a single rocker; isn't that right?

A. No; that is not the case at all.

Q. Well, what is the situation?

A. When a disclaimer is filed the claim from then on has the effect of covering everything that it covered in the first place, but with the limitation or qualification placed in that type of disclaimer I would disclaim from the scope of that broad claim in effect all structures excepting those in which the treadle bar is long enough so that if you want to put on more levers than one you can do it. If you want to—

Q. What was the doubt about claim 8 before this disclaimer that caused you to want to disclaim it or limit that claim to such a feature as you have just stated?

A. In working out all those disclaimers the whole thought was, since we already had the experience with claim [137] 5 of attempting to read it on a device in a different art, to limit them in whatever way was feasible, providing we still had them narrower, to confine them more particularly to my construction and not have them broader than was necessary for the purposes of radio tuning.

Q. What was there that you had in mind that there was any doubt about claim 8 prior to the disclaimer reading on? It was not the Marschalk patent, was it?

(Testimony of LeRoy J. Leishman.)

A. No; I don't think that there was—

Q. What was it?

A. I don't remember that there was any particular thing that we figured that that read on.

Q. Then you just threw in this disclaimer, just like throwing your hat in?

A. That is a very good explanation. I had already had the experience of claim 5 of thinking it was narrow enough and then finding that somebody interpreted it to be broader. So I thought, "We will avoid that this time and make it definitely narrower before we go to court."

Q. I think you have got your pluses and minuses a little confused. You were claiming at the Cincinnati meeting that claim 5 was broad and the Crosley Corporation was claiming it was narrow and limited to that lever type of device; that is correct, isn't it?

A. They were claiming that it was narrow.

Q. Yes; they were claiming that that claim was not [138] infringed unless you used a lever type device with the lever pivoted at a point corresponding to the point Q of the patent. You understood that, didn't you?

A. Well, I guess I could say that they considered it was narrow in that respect. The idea was they put a totally different interpretation on it that I had not necessarily regarded from that angle one way or the other.

Q. Now, when you came down to just tossing in this disclaimer as to claim 8, actually you limited

(Testimony of LeRoy J. Leishman.)

the claim to something that is not even described in the patent specification or shown in the drawing, didn't you? A. No.

Q. Will you point out to me in the drawing, first, any disclosure of a single rocker plate acting as a common follower for a plurality of the tappets or movable means? Is there any such thing in the drawing?

A. The rocker 48 which is intended to control the radio set is obviously made plenty long enough and for the purpose of using it in connection with several levers.

Q. Is it so shown in the drawing?

A. The rocker is shown that way; yes.

Q. By the Court: Is it shown long enough, or to have room enough? A. That is the idea.

Q. By Mr. L. S. Lyon: Have you actually calculated it out to see in the proportions of that drawing whether [139] you could get two of those tappet members into that rocker plate as it is there actually drawn?

A. No; I haven't calculated that at all because—

Q. Will you do that before morning and tell me if it is not a fact that it would only be possible to get one tappet to act on that rocker plate, according to the specifications of the drawing?

A. I think it is obvious that that rocker—

Q. I am not just asking you that, but will you really measure it out and see whether that is the fact?

(Testimony of LeRoy J. Leishman.)

A. I don't see that that is relevant at all whether or not the exact proportions are there. I never make any pretext in any of my patent drawings to follow proportions or dimensions; in fact, they are not considered at all. You can vary the proportions and the dimensions any way you please.

Q. We are not asking you that question. You have already stated that the plate, as shown in that drawing, is long enough, in answer to the court's question, so that it would accommodate more than one of those members. And I am asking you measure it, to actually take the proportions of the drawings and measure them and see if it is, if you are willing to do that, and we will leave it up to the Judge what effect that has, if any.

The Court: As I understand the witness' testimony, it is that this rocker is made of a sufficient length that [140] it will carry more than one segment.

Mr. L. S. Lyon: Well, I am asking him to calculate it and we will see.

The Court: But he said that this drawing is not made to accommodate any particular number, but because it is of some length it indicates that there is room for more than one. That is his answer and that is his explanation.

Mr. L. S. Lyon: I am asking him if he won't measure it out and see if, as a matter of fact, that the length of it will only permit one to go in, and not two, before morning.

(Testimony of LeRoy J. Leishman.)

Q. Now, I am going to ask you another question. Is there any statement in the patent specification, anywhere, any disclosure or statement, that the follower plate is to be used with more than one tappet arrangement, a single follower plate?

A. There is a statement in here that is of that import on page 2 of the reissue patent and page 2 also of the original patent?

Q. At what lines?

A. On the left-hand column, beginning at line 37, this statement appears:

"If a plurality of such lever assemblies are mounted on shaft Q, each one may be set to bring in a different pair of radio and television stations."

Q. That says a plurality of lever assemblies are mounted on shaft Q. Does it say anywhere that they act [141] on a single follower plate or a single rotatable rocker?

A. It does not specify that, but that certainly is the inference. The mechanism is all described, and then without—

The Court: You are getting awfully technical, Mr. Lyon.

Mr. L. S. Lyon: I am getting at a point here. You are not allowed in ~~these~~ disclaimers to write anything in by any process of interpretation.

The Court: I know the direction that you are drifting and I think probably you would not like me to refer to it as "drifting", but I know what you

(Testimony of LeRoy J. Leishman.)

are driving at. But when you say that this man did not intend that this should be for a number, so that it could tie into a number of different radio stations—

Mr. L. S. Lyon: Oh, I am not saying that. He could easily—I have not finished with him.

Q. It would be possible, would it not, to construct the tuning device so that you had a plurality of the lever assemblies mounted on the shaft Q and had for each particular lever assembly an individual rocker bar, and in that way to set to as many different stations as you had assemblies?

A. It would be possible but it would be a very complicated and absurd mechanism, and nobody would arrive at such a structure.

Q. What would be so complicated about that? You would just have a rocker bar for each individual assembly, would you not? [142]

The Court: You might have a separate radio for each station, too.

Q. By Mr. L. S. Lyon: As a matter of fact, this phrase that you have referred to refers to bringing in a different pair of radio and television stations, does it not?

A. Certainly, but then an inventor is entitled to any use to which his mechanism can be put, the decisions state; and it is obvious here that you have one lever, and it is stated in the objects of the patent on the first page that I intended to do either. So it would be possible to have, as the patent so states, the

(Testimony of LeRoy J. Leishman.)

plurality of these devices; and if you could tune any of them, naturally you could tune any one that you wanted to, or eliminate the bar tappet that would have to do with the television set and confine the mechanism to the use with radio.

Q. I am going to ask you this question: For your disclosure upon which you predicate the right to file this disclaimer as to claim 8 do you depend upon this sentence, commencing at line 37 on page 2, in the left-hand column, or do you depend upon the proportions of the follower plates shown in the drawings of the patent? We have had two assumptions here, your Honor. One is that because this drawing of these follower plates shows them somewhat elongated, that it was meant for more than one. I am going to show that only one can get in there within the proportions [143] that are in this drawing. The second thing we have had is that because he calls for a plurality of lever assemblies on the shaft Q that he intended to operate on the same follower plate. And I am saying there is no basis for that inference, particularly in view of the drawing. There is no more of a disclosure than there is that that should be a follower plate for each individual assembly. I want to know which one of these the witness relies upon.

The Court: You do not have to state what he relies upon. Here is his patent and he relies upon the patent, whatever that discloses. That is what he has to rely upon, isn't it?

(Testimony of LeRoy J. Leishman.)

Mr. L. S. Lyon: That is right, that is right.

The Court: You are asking him to state what he relies upon from this patent itself. The patent speaks for itself.

Mr. L. S. Lyon: That is right; but I have the right—I think it is usual practice with the inventor on the stand in a case like this, and he is relying on a certain feature, to ask him to point out what part of the specification or what point in the drawings he depends upon for that disclosure, because that helps the court. I mean it does not have to read the whole patent on that point, and then we can examine the correctness of that statement.

A. Well, you asked me what my intentions were about that and what I relied upon and so on.

Q. I ask you which you rely on in answer to my question. [144] I asked you originally if it was not true that there was no disclosure in this patent of using a single rocker with more than one tappet assembly, and you said there was. Now, you first pointed to the drawing and then you pointed to this paragraph commencing at line 38 in the left-hand column of page 2. Do you stand on the drawing or do you stand on that statement on page 2?

A. I don't necessarily stand on either one because the drawing was intended to indicate a type of treadle bar that was usable with a plurality of these members. This application, incidentally, from which this patent issued was a division of another application showing in each of its modifications and

(Testimony of LeRoy J. Leishman.)

forms of invention a plurality of operating members; and this was intended then just as another general form and it was so obvious that it was intended that there should be any number that a manufacturer might desire that I did not bother to show more than one. One lever was an example of what they would all be like; and I intended to show that rocker broad enough to indicate that more than one could be used. [145] I have never measured that rocker out to find out whether more than one can get in and I do not think it is material because that was the inference that anybody would get from it and what I intended the drawing to indicate. I never paid any attention to the exact proportions of it and I don't think that it is material at all.

The Court: I want to state that in reading this patent I certainly had very definite ideas from it, and that is, that there was a multiple of levers and they worked on one rocker. Whether I was justified in doing that from reading the patent or not, I don't know; but I feel that the time taken up over that, as far as the court is concerned, is a waste of time to this court.

Mr. L. S. Lyon: I would like to get the record clear on it.

The Court: I am perfectly willing that you have your record clear. I am just saying that, as far as this court is concerned, it is a waste of time.

Q. By Mr. L. S. Lyon: Mr. Leishman, in view of the fact that you have stated that the Marschalk

(Testimony of LeRoy J. Leishman.)

patent shows the adjustable tappet to actuate or operate on a rocker bar or a rocker with two arms, and that you no longer think that that was your invention, what do you think your invention was over these prior devices and prior patents as you have now found them to exist?

A. I think that the invention lies in the particular form and manner of cooperation between the adjustable tappet element and the rocker plate.

[146] Q. Now just precisely what do you mean by that?

A. I think that it resides in opening up the rocker. It is not evident from that colored sketch of the Marschalk device, but it is from the figure from which that—it is from one of the other figures, in the Marschalk patent that it is a solid plate. I found that, or I think that my invention lies more particularly and more specifically in opening up this rocker and in arranging it so that a portion of this positioning means might pass down into it; or either more broadly—and I think the claims justify this—it resides in arranging these parts, which are the same parts that have always been in the patent, covered by claim 5, in such a way that the axis of the tappet member or the point around which it is adjusted can be in line with the axes of the rocker. I found that that was a very important feature that I contributed to the art, and that instead of broadly having invented the combination of a rocker member and a tappet operating on it, that the invention rested and resided more particularly in those specific

(Testimony of LeRoy J. Leishman.)

features that I brought out in these claims in the reissue patent.

Q. In other words, you now are of the opinion that your invention resides in a coaxial alignment of the pivot of the tappet with the pivot or axis of the rocker bar, is that correct? [147]

A. I would not put it exactly that narrow. It resides—and this is about phrasing a claim. We have the claims already here to interpret in what I think the invention lies—but if I may generalize here without too much importance being attached to each specific word, I would say that it resides in having this adjustable or movably mounted tappet that can co-act with the rocker for tuning in the radio set, and in so arranging them that the point around which the axis—or around which the tappet member or positioning member is adjusted is in line with the axis of the rocker.

Q. Do you mean that that principle of coaxiality or concentricity in the operation of a tappet in a radio tuner was broadly new with you? Is that your understanding?

A. Will you repeat that question?

Q. Or for novelty do you depend upon the particular form of the device that embodies it?

A. I feel—and as far as I know it is true—I am the first one to use in a device of this kind an adjustable tappet carrying element that is adjustable around a point which is coaxial with the center of rotation of the rocker.

(Testimony of LeRoy J. Leishman.)

Q. Irrespective of the particular form of the rocker, and irrespective of the particular form of the tappet, and irrespective of the particular form of the operating device by which the tappet is carried, is that correct?

A. I think that I can state that, but I tried to phrase that very definitely in the claims of the reissued patent. [148]

Q. You never had attempted—

The Court: Gentlemen, it is 5:00 o'clock. There is just one question I would like to ask the witness while it is fresh in my mind.

Q. This other patent—what do you call it, the Marschalk? A. Marschalk.

Q. —the Marschalk patent contains in general the same principles, does it not? A. In general.

Q. And your patent, it is your contention, is an improvement over the Marschalk patent?

A. Yes.

Q. It uses the same general combination of a rocker and—what do you call this other, a ratchet?

A. No; a tappet or—

Q. —a tappet; you use an adjustable tappet in each one and you use a rocker?

A. That is right.

Q. But you in your invention worked out a method whereby the tappet moved down into the rocker so it became coaxial with the rocker?

A. That is true in general. It is not necessary that the tappet itself or any part of it move down.

(Testimony of LeRoy J. Leishman.)

in there but the axis must be there. You could really have a phantom axis and have it move around a phantom axis, but the point [149] around which it rotates, whether it is a physical point or—

Q. This tappet here, suppose, for instance, that this tappet was on here just the opposite direction so that the tappet instead of being up above the bolt here was down below; it would have the same effect, wouldn't it?

A. No; it would have a very different effect.

Q. Of course, I can't turn that over, but if that was turned around and at a definite angle it would lie just the same way, would it not?

A. It would hit it but it would be practically impossible to adjust for various mechanical reasons.

Q. Well, on this particular arrangement, But that might be if it was held down from the top like we have—where is No. 8?—the tappets here are adjusted from the top?

A. They are adjusted from the top?

Q. And they are loosened from the top, while it is true that they protrude down into the rocker, but would it be necessary?

A. Yes; it would. I think we can—

Q. In other words, on No. 8 when it is plunged down it is controlled by a spring and plunges clear through the rocker; but in your invention, as demonstrated by 7, it simply moves down into the rocker as a matter of convenience, you might say? [150]

A. No; it is much more than a matter of incon-

(Testimony of LeRoy J. Leishman.)

venience, as I think will be brought out on the testimony tomorrow, that I might call your attention to the particular point of similarity of those members, your Honor, if I may? It can be done in just a moment. Now, on this device here you will notice that—we will loosen this up and the feature will be more apparent—you will notice that the point around which that rotates, you can probably see that this little pivot point is in line with this shaft around which that rotates; in other words, the axes of rotation are absolutely in line, that is, they are coaxial.

The Court: Yes.

A. That is also true of this device. It shows what care has been taken in the design of that to get them so they are right in line. If I loosen this up you will see that that also will turn as a unit. And that, as I think, will be brought out on testimony tomorrow, is an absolutely essential feature of a workable tuner. You can't adjust the device, you can't adjust the Marschalk device with any ease or with any accuracy. Great and extreme care must be taken with it and it would not be a practical commercial device at all through the absence of that particular feature which is now— [151]

Cross Examination  
resumed.

Q. By Mr. L. S. Lyon: Mr. Leishman, you had stated in your cross examination yesterday or had

(Testimony of LeRoy J. Leishman.)

explained that you in the first instance believed that your invention consisted of the pivoted tappet operating on the rocker, but you have since come to the conclusion that your invention resides in the detail of aligning the rocker pivot and the tappet pivot so that the two are coaxial. When did you arrive at that conclusion?

A. I didn't arrive at that conclusion and I don't think that is what I stated yesterday.

Q. Maybe we do not understand each other, or at least I don't understand you. You did originally consider that you were the inventor and that your invention consisted of the combination of the pivoted tappet and a rocker plate, did you not?

A. I stated that in claim 5 I understood to claim a phase or part of my invention which had to do with the movable or rotatable tappet which constitutes the positioning member, and it had to do with the rocker and the positioning of the rocker by means of that tappet member.

Q. That was what you considered originally to be the patentable invention that you were covering by claim 5, is that correct? [154]

A. I think that is correct.

Q. Now you no longer contend that that was your invention?

A. I claim that my invention having—

Q. Well, can you answer that directly?

A. No.

Q. You cannot answer it directly?

A. No.

(Testimony of LeRoy J. Leishman.)

Q. Well, answer it as best you can.

A. I think that my invention probably lies more specifically in these elements constructed and co-acting with the tappet member so arranged that it can be moved or adjusted about a point which lies on the axis of the rocker or positionable member.

Q. If your tappet pivot is not so arranged relative to the rocker, do you contend that the use of a pivoted tappet to operate the rocker is your invention?

The Court: Repeat that question, please, and see if I grasp it, Mr. Reporter.

(Question read by the reporter.)

A. Of course, there are always various ways of limiting or defining a device; and I have also stated in the claims, which are supposed to be the measure of my invention, that when you have an open treadle bar that will admit part of the positioning means into that opening that that also is a phase of my invention. [155]

Q. By Mr. L. S. Lyon: My question is do you any longer contend or believe that just the use of a pivoted tappet to operate a rocker bar was new with you and an invention of yours?

A. I contend that in this kind of a device, in combination with the elements that I have mentioned in my claims, that it was.

Q. I am not asking you with those qualifications. I am asking you without those qualifications: Don't you now regard that pivoted tappet operating on a

(Testimony of LeRoy J. Leishman.)

rocker was shown prior to your invention in the Marschalk patent? A. Yes.

Q. Your invention, then, consisted of these details that you have mentioned, including the alignment of the pivots, and in that connection accommodating the tappet pivot by means of the aperture in the plate. When did you come to the conclusion that those were your invention, as distinguished from what you had thought your invention to be before?

A. I have never definitely come to the conclusion that positioning, divorced from the parts that are so positioned, constitute the invention. Those are details having to do with those parts and their manner of construction and their method of co-action.

Q. Do you consider broadly that you were the first to accomplish concentricity, or in effect coaxial alignment of the tappet pivot with the rocker pivot, as a matter of [156] broad principle and distinguished from the particular form of your device?

A. I have never given that any thought and I don't think that I could say that I do consider that.

Q. Do you consider that your invention resided in forming a hole in the rocker plate?

A. I think that it resided in providing that recess or opening. It does not necessarily need to be a hole.

Q. Well, we will call it a recess if you prefer.

A. Some recess in the treadle to admit the point of the tappet or positionable member around which

(Testimony of LeRoy J. Leishman.)

it is adjusted, and in doing that in conjunction with the tappet and the rocker, of course. [157]

Q. What feature of the arrangement that you have just described do you regard as new and constituting your invention?

A. I don't regard that the feature exactly constitutes the invention, but the feature in conjunction with these other parts and elements constitutes invention; and the particular novel feature that I contend that I introduced for the first time into the automatic tuning art is the treadle bar with the recess into which can be admitted the point around which the positioning member or tappet may be adjusted.

Q. Is it necessary in order to secure this concentricity or effective coaxiality of the pivots which you have referred to that the rocker bar be apertured or that the pivot of the tappet actually project into the width of the rocker bar?

A. No; that is not absolutely necessary; in fact, I can see that I have slightly understated my invention in the question that I answered previously. One description of the invention which I think holds has to do with this coaxiality even if the treadle bar is not open.

Q. By the Court: What do you mean by the treadle bar? Do you mean the rocker?

A. Yes, your Honor.

Q. When you speak of the treadle bar, you are referring [158] to the rocker? A. Yes.

(Testimony of LeRoy J. Leishman.)

Q. How can you have coaxiality unless the rocker is open?

A. There are other means of arranging those parts. It may be that a model may be introduced into evidence later which will show that. Engineers have gone to great extremes to achieve that axiality without having the treadle bar open.

Mr. L. S. Lyon: I think I can clear that up there.

Q. I show you a tuner. Can you recognize this as the Sparks Withington tuner which you are asserting is an infringement of the reissue patent here in suit in a suit that you have filed and is pending in this court?

The Court: Is that other case coming up soon?

Mr. L. S. Lyon: No. That is still another one, your Honor. I don't think it is in your department.

The Court: I thought I had all of them.

A. I can't say definitely that this is the Sparks Withington device but I might say, as far as I can tell on this examination, it is. It operates on the same general principles and it has the features that I remember are characteristic of the other device.

Q. By Mr. L. S. Lyon: And it has the features which you are claiming are an infringement of the reissue patent that is involved in this suit? [159].

A. Yes; it has that, too.

Q. Does it have an apertured rocker?

A. In effect, it does.

Q. In effect?

(Testimony of LeRoy J. Leishman.).

A. Yes. These two members turn as a rocker. It turns substantially as an integral unit.

Q. And does the pivot of the tappet project down into that aperture when the tappet engages and operates the rocker?

A. In this case the tappet member is not pivoted but you may notice that I stated that the point around which the adjustable elements are moved or adjusted should be coaxial or in line with the axis, and that is true in this device.

Q. Then, you are charging infringement of these reissue claims in this suit by this Sparks Withington device even though there is no pivot for the tappet and no point which actually is received within the aperture of the rocker plate?

A. There is a point received within the rocker plate.

Q. Where is the effective pivot of the tappet in this Sparks Withington device, at what point? Will you describe it?

A. This device is so designed, as I remember the Sparks Withington device, so that any point on which the tappet may engage this portion of the treadle and the point on which the other tappet or the other part of the adjustable means on the other side will engage the other side of the rocker, [160] if you draw a line, a mathematical line, between those points, will always cross right through the axis of rotation of this treadle.

(Testimony of LeRoy J. Leishman.)

Mr. L. S. Lyon: We will offer the model of the Sparks Withington device, which the witness has identified and referred to, as Defendant's Exhibit E.

Mr. Flam: For what purpose?

Mr. L. S. Lyon: To show the construction that the witness is putting on his reissue claims and in connection with the statement—

The Court: It is explanatory of his testimony.

Mr. Flam: If that is the purpose, there is no objection.

The Court: It may be admitted.

Q. By Mr. L. S. Lyon: I hand you an additional tuner, which I haven't shown you before, and ask you if you can recognize that as one of the types of tuners manufactured and sold by the Crosley Corporation, which is defending this suit.

A. I can't say that I do. I am not familiar with this particular device.

Q. Are you prepared to state whether or not you contend that that device is an infringement of the reissue claims of your patent here in suit?

A. No. I would want to examine it more fully and in some detail before making that kind of an assertion.

Q. Will you please do so at the noon recess if that [161] gives you time? A. All right.

Q. You have referred in connection with the Sparks Withington device, Defendant's Exhibit E, to the fact that, although there is no actual aperture rocker, the mechanism there employed in effect pro-

(Testimony of LeRoy J. Leishman.)

vides two arms which have points of contact with the tappets, so that those points of contact move in a circle in the operation of the rocker with the tappets in contact therewith, is that correct?

A. Well, I would say that possibly the points of contact with the treadle move in a circle. Of course, the tappets in this case are straight and they move in line one on one side in one direction while the one on the other side moves in the opposite direction. And as to whether or not the exact points of contact move in a circle I would hesitate to state but it appears that the actual points of contact and engagement, if you plotted it out, would possibly move in a circle.

Q. By the Court: That device is very materially different from the one here, is it not?

A. Not in the essential points. In order to have a device that can be easily adjusted and not be critical in its adjustment, it is necessary that the point around which the adjustable members move be substantially on the axis of the treadle; and that was original with me and introduced for the first time in the radio art in my device. It is a [162] very important feature of it, the thing that made these devices, in my estimation, commercially successful.

Q. By Mr. L. S. Lyon: The reason that that is necessary or the object is so that the points of contact between the tappets and the rocker bar during the movement of the rocker bar that is accomplished by the movement of the tappets against it shall

(Testimony of LeRoy J. Leishman.)

move in a concentric circle or be concentric or move in a circle, isn't that correct?

A. No; I wouldn't say that it is.

Q. Why is it that you want these pivots coaxial? What is it you want to accomplish by that?

A. I want to have it so they will move as a unit during the adjusting process and so that there won't be any tendency during the adjusting process for any extraneous movements of the one to move the other.

Q. That requires that, if two members are going to turn together, they be concentric with a line to each other, does it not?

A. Concentric but that doesn't necessarily mean that the points must move in a circle.

Q. Isn't what you have described here in your answer just given true of the old Zenith device, whether or not the arms against which the tappets operate be of the form which you have referred to as an elevator in the Zenith device, or in the form of a pivoted rocker?

A. Of course, in this device the rocker is not pivoted [163] and I don't claim that my invention has anything to do with this type of mechanism.

Q. I am not asking you that. As to this feature which you said you were the first to introduce into the radio art isn't the same thing accomplished in this Zenith device?

A. No, because it has no rocker.

(Testimony of LeRoy J. Leishman.)

Q. Don't the two arms in the Zenith device which are operated by the tappets of the Zenith device accomplish the same concentricity we have referred to?

A. They might accomplish a concentricity but not a concentricity with respect to a rocker or treadle because it has none.

Q. The only difference is, then, that in your device the rocker shall be in the form of a treadle bar, whereas, in the Zenith device it is in the form of these two arms operated by those two racks, but the same effect is accomplished in both, is it not?

A. I don't see that it is the same effect when one has these complicated elevators and mine has a simple rocker.

Q. I am not asking you about the difference in a rocker and the two elevators, as you call them, I am asking you if the elevators do not accomplish the same effect in the Zenith device, in coacting with the pivoted tappets there, as you accomplish in the feature of coaxiality or concentricity of your rocker and tappets to which you have referred. [164]

A. Yes; I guess it accomplishes the same purpose but certainly not in conjunction with a rocker, to which I have definitely confined my invention. It is to be used in conjunction with a rocker and treadle bar and has nothing to do with elevators.

Q. Then, your invention now comes down not to coaxiality and not to line pivots but comes down now to whether you have a rocker instead of two

(Testimony of LeRoy J. Leishman.)

cooperating bars; such as in the Zenith device, is that correct?

A. No; it isn't. You say that it now comes down to that and I have consistently stated all along that the matter of coaxiality divorced from the rocker has nothing to do with my invention.

Q. In this Sparks Withington device, so far as concentricity is concerned and what you accomplish by coaxiality in your device, the same thing is accomplished in the Sparks Withington device, Exhibit E, by two arms, two tappet arms, that are not pivoted at all, isn't that correct?

A. I think I can say yes to that question as I understood it.

Q. What you are telling us is that the rocker bar is different from the two arms of the Zenith device in respect to its movement but, when you come to the pivot of the tappet, you don't have to have a pivoted tappet? You can have two arms there and still it will be your device or your invention, is that correct? [165]

A. That is a thing that my invention has made possible in connection with the treadle bar type of construction.

Q. Why is it that the two tappet arms would have to be on a common pivot to incorporate what you think your invention is but that the two arms that are supplied by the rocker have to be on a pivoted rocker? Why can't one have the same difference in it as the other?

(Testimony of LeRoy J. Leishman.)

A: Well, because one pertains to the treadle bar and the other does not.

Q. Well, I understand; but what difference does it make whether you are going to have a pivoted treadle bar or going to have a pivoted tappet?

A. It makes a very great difference.

Q. What difference does it make?

A. If you are going to have—if you have a pivoted treadle bar you greatly simplify the construction that you would have if you had an elevator construction.

Q. Well, how about if you have a pivoted tappet; isn't that more simple than using those two arms in lieu of a tappet which is in the Sparks Withington device?

A. Yes; that is probably more simple.

Q. Isn't the difference almost the same difference? Aren't the two arms that supply the tappet in the Sparks Withington device very similar to the two arms of the tappet in the place of the rocker in the Zenith device?

A. No; I wouldn't say so. [166].

Q. Well, they have the same elements and the same arrangement and function the same way, do they not? A. No.

Q. Then, if I understand you correctly, your invention now is in what, just in the aperture in the rocker plate? A. No.

Q. Well, what is it in?

(Testimony of LeRoy J. Leishman.)

A. It is in the combination of a rocker plate with positioning means or adjustable means which may be movable around a point lying substantially coaxial with the treadle bar.

Q. In the light of a charge of infringement against this Sparks Withington device this positioning means does not have to be a pivoted tappet; that is correct, is it not?

The Court: Are you an attorney in that case?

Mr. L. S. Lyon: No.

The Court: I was just wondering if you were trying that case or this case.

Mr. L. S. Lyon: No; I am not an attorney and we are not representing Sparks Withington. We are testing his statement of what his invention is against the claim he is making in this court, which we do not believe can be reconciled with it. He is pointing to one thing, in other words, in this case, and to something else in another one.

The Court: Well, go ahead.

The Witness: I don't think there is an unfinished [167] question, is there?

Mr. L. S. Lyon: Is there, Mr. Reporter?

(Question read by the reporter.)

A. Yes; that is correct.

Q. And in place of a pivoted tappet to be included within what you claim is your invention, you can substitute a pair of arms that are carried on racks and which move in effect about a center in place of a pivoted tappet, is that correct?

(Testimony of LeRoy J. Leishman.)

A. I haven't analyzed that. That would take some time. There is no device in which tappet members move on racks that I know of.

Q. I am referring now to the Sparks Withington device.

A. There are no racks in that, that I know of.

Q. There are arms which supply the two tappets that are pivoted in your device; they are independent arms, are they not?

A. Not necessarily independent because they are tied together with that central screw.

Q. By the Court: What do you mean by "arms" in this?

A. I think, your Honor, that by arms he means these tappets. Here is one arm of the tappet.

The Court: I see.

A. You might notice that when you turn this adjusting device here—my fingers are slippery and I can't turn it—but there is a right-hand screw and a left-hand screw in this [168] so that when one moves in one direction the other one moves in the other direction and you get somewhat the same movement as you do on the tappet here, one going up while the other goes down.

Q. By Mr. L. S. Lyon: How does that differ in effect from the two arms which you call an elevator in the Zenith device?

A. I don't see that they compare in any way because they are on totally different parts or elements of the structures or combinations.

(Testimony of LeRoy J. Leishman.)

Q. What we are getting at is that you insist that the two arms of the rocker plate must be carried by one plate which is pivoted, to meet your invention, but when you come to the two arms of the tappet you say those do not have to be on a common pivoted member; that is correct, isn't it?

A. Yes; that is correct because in my device you have—I am the first to provide an open rocker or treadle bar with a recess in it, and whenever the adjustable member or a point around which it moves extends down into that recess, whenever the points of rotation of those two elements that I have described are coaxial that gets down to the thing that I introduced first into the radio art.

Q. As a matter of fact, in the Zenith device the two bars operated by the pivoted tappet in that device are spaced apart so as to provide an aperture between them, and the tappet or the pivot of the tappet extends down into that [169] aperture between those bars in the operation of tuning, does it not?

A. I think that is correct.

Q. Then, the Zenith device has the aperture and has the tappet pivot aligned in the same relation as you align it with the rocker in your device; the only difference is that you have a rocker and the Zenith device has two oppositely moving independent arms—I say "independent"—they are actually tied together by a common gear; isn't that correct?

A. No; that is not the only difference or the—

Q. Well, there is that difference?

(Testimony of LeRoy J. Leishman.)

A. There is that difference. That is one bit of difference.

Q. What other difference is there?

A. But the Zenith is a very complicated mechanism employing a multitude of parts instead of a rocker.

Q. Then, your invention has no new principle and is merely a different form or embodiment of old mechanical principles; do you concede that?

A. I think that is true of practically every invention that has been made in the last hundred years.

Q. I mean do you concede it to be true of your alleged invention involved in this suit?

A. Well, I think that that kind of a statement involves so many different interpretations of terms that any answer [170] that I might give might mean one thing or another.

Q. You would not care to answer the question?

A. No. I think that any answer to that—

Q. By the Court: Well, can you answer it?

A. No; I can't. I think many books could be written on a subject like that in an attempt to answer it.

Q. By Mr. L. S. Lyon: What I am getting down to is this: Originally in claim 5 you did not attempt to specify as your invention this feature of an aperture in the rocker or the alignment of the tappet pivot by its being received within that aperture, did you?

(Testimony of LeRoy J. Leishman.)

The Witness: Will you repeat the question?

(Question read by the reporter.)

A. No; that is correct.

Q. What I want to know is when did you first come to the conclusion that your invention was limited or resided in those features?

A. I never came to the conclusion that it resided wholly in those features. I was willing for safety first to confine a phase of it to those features.

Q. When you decided to write claims directed to those features you had decided that your invention resided in those features, had you not?

A. Well, invention can reside in many different features. That is why you have so many claims in any patent.

Q. I am not asking you that. But when you decided [171] to write claims on those particular features you came to the conclusion that your invention resided in those features?

A. Those features were a part of it, but you can't say that your invention resides in the features of this claim, or that claim or the other claim.

Q. When did you come to the conclusion that those were features of your invention upon which you should write claims?

A. After the conference at Cincinnati with the Crosley attorneys, as I stated yesterday in answer to substantially the same question, I came to the conclusion that it would be advisable to have a narrowing reissue.

(Testimony of LeRoy J. Leishman.)

Q. How long after the meeting at Cincinnati with the Crosley representatives?

A. Oh, I told them at that time that I would take remedial steps to clear up any ambiguities, if there were any in that claim.

Q. The only thing you mentioned to them that you proposed to do was to file one or more disclaimers, isn't that correct?

A. Not that I remember. I told them I would take steps—

Q. Well, you did not say anything to them or tell them that you planned to file an application for a reissue? [P72]

A. I don't know whether I did or not, but I told them that I would take immediate steps and that it was an important matter and that I would defer it until I had an opportunity to consult an attorney in the matter.

Q. Then you did consult Mr. Flam before you did anything else, is that correct?

A. Not immediately. I was east for fully a month after I had that conference at the office of Allen & Allen. Then when I got back here I told Mr. Flam of this peculiar interpretation that had been placed on claim 5 and that it was entirely different to the interpretation that I had intended; and I told him that I had explained to the Crosley Corporation that I would remedy it in some way; and that I wanted to discuss with him the possible ways of doing it.

(Testimony of LeRoy J. Leishman.)

Q. By the Court: To remedy what?

A. The ambiguity that possibly resided in claim 5. They, as you remember, your Honor, contended—

Q. I remember that; but I was just wondering what you were going to remedy.

A. I wanted to get a narrowing reissue, and at the same time, so—

Q. Did you tell them that you were going to get a narrowing reissue?

A. Did I tell them that?

Q. Yes. [173]

A. No. I didn't know much about reissues at that time. I had a vague idea about them. I had just become conscious of the fact that there were such things.

Q. In other words, at that conference they, in a sense, convinced you that your claim was too broad, isn't that true?

A. No. No; they didn't convince me that it was too broad. I didn't have that idea at all.

Q. By Mr. L. S. Lyon: They convinced you that it was too narrow, didn't they?

A. No. They convinced me that it was possible by devious means to put a different interpretation on the elements of the claim than it was intended.

The Court: I was just wondering how a person could word a claim that would be possible to satisfy you patent attorneys. I wonder if it is possible in this day and age.

Mr. L. S. Lyon: Your Honor, not only is there a

(Testimony of LeRoy J. Leishman.)

problem of satisfying the attorneys but I can assure you there is one of satisfying the courts with a claim because that is a problem in every case. And I do not believe a perfect patent has ever been written yet. I do not believe it is possible. I do not believe the English language is capable of such precision that it can accomplish, with any absolute rigidity, what the law now contemplates it should accomplish. The Supreme Court has said that the claims in the patent should be like the metes and bounds in a deed; in other words, it should draw a line around the man's [174] exclusive right rigidly, like the boundaries of a deed. And our language is not developed to a point where it is capable of accomplishing that function, without giving rise to all kinds of questions, of ambiguities and uncertainties and double meanings; and that is where our system fails; and that is what gives rise to so much difficulty in patent suits.

The Court: I am going to ask the reporter to just make a memorandum of that in his notes so that I can have that statement. I want it for some of the cases in which Mr. Lyon represents the plaintiff.

Mr. L. S. Lyon: I have said that publicly, your Honor, before.

Q. Were you the one or was Mr. Flam the one that suggested that these new claims of this reissue should be directed to this aperture in the plate and

(Testimony of LeRoy J. Leishman.)

this feature of bringing the axis of the tappet down into that aperture?

A. I drew up these claims and, I think, some other claims and presented them to him and asked him if they were narrower than claim 5.

The Court: Now, Mr. Reporter, will you read the question? And I will ask the witness to answer it.

(Question read by the reporter.)

A. That was my own idea.

Q. By Mr. L. S. Lyon: Will you point to any phrase or statement in the specification of the patent in suit [175], which points out or asserts that your invention resides in either the aperture in the plate or the feature of bringing the tappet pivot down into that aperture, or that there is any advantage or any new result accomplished by such construction?

The Witness: May I have this, your Honor, for a moment?

The Court: You had better use the regular exhibit and then I can follow my copy.

The Witness: Maybe I have one here. Let's see; yes, here is one, your Honor.

A. On page 2, column 1, line 30, it says:

"When the lever assembly is all the way down it will be observed from Fig. 2 that the pin 60 is substantially co-axial with the rockers 48 and 54, which means that in this position it

(Testimony of LeRoy J. Leishman.)

is also co-axial with shafts S, 49 and 25, shown in Fig. 1. Pin 60 and shafts S, 49 and 25 are therefore all approximately equidistant from the fulcrum Q."

Q. By Mr. L. S. Lyon: That is the only statement of that kind or on that point that there is in the specification?

A. As far as I know, that is the only statement; but the drawings also show it and that certainly states it very clearly. I don't see that it needs—

Q. The statement you have read has to do with the coaxiality of the tappet pivot with the combination of the [176] two rockers, one for the radio and one for the television, does it not?

A. Not necessarily.

Q. Well, that is the way it is worded, is it not?

A. But if it is true of both of them it certainly is true of one.

Q. Is there any statement in the patent to the effect that there is anything desirable or anything useful to be accomplished by coaxiality of the tappet pivot with a single rocker if you are merely tuning a radio set and do not have a combination of two rockers, one of which is for a radio and one of which is for a television set?

A. I don't know that there is, but it is definitely stated here and a special paragraph is devoted to that feature of construction. I think that is plenty.

Q. What about this last line that you have read:

(Testimony of LeRoy J. Leishman.)

"Pin 60 and shafts S, 49 and 25 are therefore all approximately equidistant from the fulcrum Q." Will you point out to the court just what that means in your device?

A. That, your Honor, is another thing. That has to do with this matter of coaxiality.

The Court: Here is a model.

A. It seems that the distance from the axis of the rocker or, for practical purposes, we might say this shaft, to the center of this pivot is exactly the same as the distance from the center of this pivot or shaft to the [177] center of this pivot. That is necessary if they are going to be coaxial.

Q. That would be simply a mechanical arrangement, would it not? That would have to be so? In making a rocker or in making it equidistant, it would have to come down to the same place each time, would it not?

A. It would have to come down to the same place each time but suppose this pivot point here of the tappet member were locked further from the center of rotation of the rocker back here than the center of the rotation of the rocker—I think I am getting my terminology mixed here. I will make that statement again. Suppose that the center of rotation of the tappet or the pivot of the tappet were a greater distance from the center of the shaft on which the lever is mounted than the distance from the axis of the rocker to the center of this shaft on which the lever is mounted, if that distance were

(Testimony of LeRoy J. Leishman.)

greater, then this pivoting point of the lever will be over here somewhere and you wouldn't have them coaxial or, if that distance happened to be less than that, you wouldn't have them coaxial.

The Court: I know what you mean.

Q. By Mr. L. S. Lyon: The defendant in this device doesn't have a shaft Q which may be used as a base to accomplish this coaxial feature by having those various fulerums equidistant? You recognize that, do you not? A. Yes. [178]

Q. Doesn't the defendant have to have a different way of bringing about coaxiality? He can not rely on those equidistant fulerums? That is true, isn't it?

A. That is true but he can certainly take simple means of seeing to it that his adjustable tappet member or positioning means is coaxial with the rocker.

Q. But he has to do it in a different way from what you can do it with the lever arrangement shown in your patent? That is correct, isn't it?

A. I wouldn't say in a different way. That is just a mechanical detail and a requirement.

Q. Whatever we call it, it has to be done differently in the defendant's device from the way you accomplish it in the lever device of your patent, is that right?

A. Only to the extent that one uses a lever to carry the tappet and the other uses a plunger to carry the tappet.

(Testimony of LeRoy J. Leishman.)

Q. How does the defendant accomplish the coaxiality in its device that you accomplish by equidistant fulerums in your arrangement of your patent?

A. I will have to loosen up one of these tappets here to make my explanation. Your Honor, I have loosened the tappet on one of these operating arms so that it is now free to move about its pivot. And it will be noted that it is so arranged that the point of rotation or the center of rotation of that positioning member or tappet or cam is absolutely on the axis of rotation of this rocker. The desirable feature is present in that device. [179]

Q. That isn't my question. I asked you how do they arrange those structures. How do they lay them out so that you can do that? You do it in your device by equidistant fulerums, all based on the shaft Q but there is no shaft Q in the defendant's device.

A. They merely do it by arranging the various parts and laying them out so that the center of rotation of the cam falls in that position. It doesn't make any difference how you go about doing it so long as that is the end that you secure. On various devices on the market since I introduced this feature, no matter what kind of a structure they produce, they go to great pains to achieve that coaxiality. It is the end that counts there and not the particular form.

(Testimony of LeRoy J. Leishman.)

Q. One form of achieving it and the same thing is shown in the Zenith device, isn't it?

A. No.

Q. Don't you accomplish coaxiality in the Zenith device? I thought you admitted a moment ago that it did.

A. There is no rocker in the Zenith device at all.

Q. I am not asking you that. In a different form, where you use two bars operated on racks instead of connected together and turned on a pivot, Zenith accomplishes this same coaxiality and he does it in the same way, that is, by bringing the pivot of the tappet down into the aperture between the bars? You admit that, don't you? [180]

A. I don't know that you would call that exactly coaxiality in that case. That is a matter of having the point around which the tappet is adjusted lined up in such a relationship with the other parts. But the Zenith device

Q. What is the difference? You say it is not coaxiality.

A. Well, if you have a member that does not rotate, it doesn't necessarily have an axis.

Q. Do you have to have two axes and both members rotate in order to have this coaxiality that you are talking about?

A. In order to have the kind of coaxiality I am talking about, you have to have a treadle bar; and any other structure that has no treadle bar is totally irrelevant in my estimation.

(Testimony of LeRoy J. Leishman.)

Q. I said do you have to have both members operating around pivots in order to have coaxiality.

A. Not necessarily. It depends on what you mean by pivot. It is a matter of terminology and what you mean. You have to have an axis in order to have coaxiality but that can be a phantom axis.

Q. Don't they have a phantom axis in the Zenith device?

A. No; I wouldn't say so because you can't have an axis unless you have something that rotates.

Q. By the Court: If this device didn't use a rocker, [181] would there be any claim that it infringed your device?

A. No, your Honor; there wouldn't be. My invention has to do with devices of this type using a rocker or rotating member to position the tuning parts of the radio set.

Q. The Zenith has what is equivalent to a tappet, has it not?

A. Yes; I think we could say that the Zenith device has something that is equivalent to a tappet, your Honor.

Q. The principal differences between the Zenith and yours are that the Zenith uses what we have sometimes called here an elevator instead of a rocker?

A. Well, it uses a very complicated mechanism.

Q. Well, it is not so complicated, is it? Look at it. It is not so complicated. It has an elevator instead of a rocker, hasn't it?

(Testimony of LeRoy J. Leishman.)

A. May I have the other model there, please? There is this difference in the complexity of that part of the mechanism. Here is one part, which in itself is about the equivalent in the amount of material used and in its simplicity with my rocker. I am talking about one single bar of this complicated mechanism.

Q. For instance, these two lower parts here work, in a sense, as your rocker works except there are two separate pieces or two separate sections which are extended and have the other parts at the top? For instance, you take [182] here on your rocker, it moves back and forth? Of course, being one piece, when you move one edge, it naturally moves the other edge?

A. That is right, your Honor.

Q. So that, when you move one edge, the other moves along with it so that, in effect, this more or less complicated mechanism, as you call it, has the effect of a rocker because the advantage of the rocker is so that, when you hit one edge of it with your tappet, that naturally brings the other edge down into position?

A. That is true, your Honor. But—

Q. Now, when you bring your tappet down here in this manner, it has the same effect of bringing it down so that it comes in contact with it?

A. That is true, your Honor. But I have briefly simplified that structure.

Q. That isn't the point I am trying to get at,

(Testimony of LeRoy J. Leishman.)

whether it is simpler or not. I want to see if I can understand the difference between those two patents.

A. I might mention, your Honor, that essentially in the Zenith mechanism those parts move in straight lines up and down and there isn't the rotation such as you can get out of a simple rocker.

Q. I know, That is true, that this rotates on an axis.

A. Yes; which permits a very simple construction.

Q. But the purpose of the rotation is so that, when the [183] tappet first hits one edge of the rocker, by reason of the rotation it forces the other edge to turn and come in contact with the complete tappet so as to have it in position for your predetermined station?

A. That is right, your Honor. There is that similarity in the devices.

Q. So that, when your tappet here strikes one edge of the elevator, by reason of these two parts fastened together by this cog-wheel, I presume you would call it, when you move one edge or one portion of the elevator, the other portion moves along with it? A. That is right.

Q. And it has the effect of a rocker? In other words, Mr. Witness, if these two pieces had been fastened together here and completed and there had been an axis put through there, it would have the same effect as yours?

(Testimony of LeRoy J. Leishman.)

A. If great pains were taken and they were so designed that the axis of rotation of that part constructed in that way were lying with the axis of rotation of the tappet in the tuned-in position, it would have that effect. And that is one of the very things I did.

Q. What I am trying to determine in my own mind is the essential differences. I recognize your point as to the rocker here and the fact that this rocker is a simpler device than this.

Mr. L. S. Lyon: I would like to go into that at this [184] moment for a couple of questions. I want to bring out now that there would have to be added—

The Court: Gentlemen, I think we will take our morning recess at this time for five minutes.

(Short recess.)

Q. By Mr. L. S. Lyon: Mr. Leishman, I want to take up this question that you brought up about the relative simplicity of the Zenith structure and of the structure shown in your patent. As a matter of fact, the Zenith structure accomplishes the necessary multiplication of the turning movement and, if the structure shown in your patent is used, you would have to add mechanism to accomplish that multiplication, which does not appear in your patent, isn't that correct?

A. I wouldn't say so. My patent specifies that you can use gears and racks and it specifies a multi-

(Testimony of LeRoy J. Leishman.)

tude or a good many different things that can be used for such connection.

Q. The point is that in the tuner you would have to add to your device those gears and racks and things to accomplish that multiplication which is already in the Zenith tuner, isn't that correct?

A. You wouldn't necessarily have to have any racks. You can do it as it is done in the Crosley device or any other means.

Q. Let's explain this to the court. The first point is [185] in the explanation that the amount of turning of the shaft that is accomplished by these different settings of the pivot is not enough turning movement to move the blades of the condenser of the radio receiver a sufficient distance to actually accomplish tuning from one station to another, isn't that correct?

A. Not necessarily. That depends entirely upon the design of the condenser.

Q. I am not asking you about not necessarily. You would have to put something in to multiply the motion that you accomplish by the simple rocker shown in your patent? That doesn't accomplish enough turning motion to change the condenser of an ordinary set throughout the range that it has to turn, isn't that right? Wouldn't you have to have a multiplying mechanism?

A. It all depends on the class of mechanism.

Q. By the Court: Will you answer the question? He is asking you about the ordinary radio

(Testimony of LeRoy J. Leishman.)

equipment that we find on the market. You as a radio engineer are evidently familiar with the range of the condensers that are ordinarily used, aren't you?

A. Yes, your Honor.

Q. Now, he is asking whether or not under your device the range is not multiplied—did you say?

Mr. L. S. Lyon: That is correct. There has ~~not~~ to be a multiplication. [186]

Q. By the Court: A multiplication of the range in order to give enough range to change the condenser so as to give the range of stations. That is true generally, isn't it?

A. Generally, that is true, your Honor. But I think, your Honor—

Q. Of course, I understand it is possible to make a condenser that probably would be so fine that the least change would give you the range. Is that what you mean?

A. There are some substantially like that on the market. There are some on the market that run only 80 degrees.

Q. By Mr. L. S. Lyon: Many condensers in radio receivers have to turn 180 degrees, do they not?

A. That is true.

Q. How many degrees turning can you accomplish by the tappet action on the rocker shown in your patent, practically?

A. Since you say practically, that would be generally, I guess, Somewhere about 60 degrees, I would say.

(Testimony of LeRoy J. Leishman.)

Q. By the Court: That wouldn't take care of an 80-degree range, would it? A. No.

Q. There would have to be some multiplication to take care of 80 degrees, would there not?

A. Yes.

Q. By Mr. L. S. Lyon: In the defendant's device will [187] you point out to the court what the multiplying mechanism is that accomplishes the necessary range?

The Court: I can see it. I recognize it.

Q. By Mr. L. S. Lyon: There is no such multiplying mechanism actually shown in the drawing of your patent in suit here, is there?

The Court: That is also true. There is no condenser shown on this but there is on the one that you have.

A. If you mean shown in the picture, that is true. But such means are mentioned in the drawing.

Q. By Mr. L. S. Lyon: The arrangement in the Zenith device accomplishes multiplication, does it not? The movement of what you call these elevators up and down which have teeth formed along their edges, operates a small shaft and a small movement of those elevators causes a big movement or a big turning of the shaft which is to operate the condenser? Do you see that?

A. I am not able to.

Q. By the Court: That is apparent that is a means of multiplication there, is it not?

(Testimony of LeRoy J. Leishman.)

A. Not necessarily, your Honor. This has to do with some mechanical and some mathematical principles here. In one case you have a member moving in a straight line and that would be true of these elevators. The condenser moves around in a circle. Now, how you can talk about multiplying the movement in a straight line with relation [188] to one that moves in a circle I don't see. I don't see the connection.

Q. That is the method of transposing the force, isn't it?

A. Yes; that is what that is, your Honor.

Q. By Mr. L. S. Lyon: If this gear in here that is operated by these two bars was a large gear, any given movement of the bars would produce a much less turning of the shaft than if it was a small gear? You understand that mechanically, don't you?

A. That is true.

Q. By the Court: In other words, the size of the teeth there governs the turning of the shaft? In other words, if the teeth are small there, the shaft will turn more rapidly? Is that the point? [189]

Mr. L. S. Lyon: Yes. It is a small wheel instead of a big wheel.

A. It would have to do with the number of teeth around the gear in relation to the teeth in a given space on the rack in that particular device.

Q. Yes. In this Zenith device the points of contact on the bars made by the tappet, in any movement of the bars describe a circle, is that right?

(Testimony of LeRoy J. Leishman.)

A. I don't know that that is true.

Q. Do you know that it is not true?

A. No; I don't. It would take a very complicated analysis of it that I am not capable of.

Q. If that is true, doesn't that effect the same result as you are effecting by what you call coaxiality?

A. No, because I accomplish it with relation to a rocker or treadle bar.

Q. I am not asking you that. I am asking you doesn't it accomplish the same result in the Zenith device as you accomplish in your device.

A. It accomplishes the same result with respect to the rockers that move in straight lines that it accomplishes in mine with respect to the rocker that moves around a pivot. I should say substantially the same.

Q. You have stated, have you not, that the test for this coaxiality that you have been referring to is that, if the tappet has been set for a given station and is in operating [190] order, if you unlatch the screw or the latch so that the tappet is then free to move from the position that you have adjusted it to, and you engage the tappet with the rocker and move the rocker, if you have coaxiality, you will feel no movement or there will be no movement at the top of the push button rod, whereas, if they are not coaxial, there will be a movement there? That is the test that you have prescribed for this feature that you have been talking about as coaxiality, isn't it?

(Testimony of LeRoy J. Leishman.)

A. That is the test that I have prescribed on a treadle bar or rocker device.

Q. And you said that that test was the one that proved whether or not your reissue claims were being infringed? That is what you announced to the trade?

A. I stated that that was one test; that, if that was true on a treadle device, it would indicate coaxiality. But there might be other tests.

Q. Just go through that test so the court will understand it definitely because I am going to ask you to perform the same test on the Zenith device and see if the exact result is not the same.

A. I will grant that that is true so far as the movement of the button; that that would be true so far as the movement of the button.

Q. You gave this as the test for infringement of your patent in your announcement to the trade?

[191]

The Court: Gentlemen, let's not argue. Let's get the facts. A good many of your questions are argumentative, Mr. Lyon, I think.

Mr. L. S. Lyon: It is hard to keep that out of the cross examination sometimes but I will try to do so.

Q. I mean you are admitting now that the test which you announced to the radio industry established your infringement of this reissue patent, which is the test that we have previously described; that the Zenith device here in evidence responds to that test? You admit that?

(Testimony of LeRoy J. Leishman.)

A. No; I don't admit that because I gave that as a test in connection with the rocker.

Q. By the Court: Now, let us see. The point is, with this pressed down, with the tappet released, that when you move the rocker, why, the—

A. The button doesn't move up and down.

Q. —the button remains rigid. And, of course, if it was tightened; when you move the bar your button would have to go up; that is true, isn't it; that is, it would move with the bar and when you release it, the tappet, and move the rocker, why, it opposes to the lever here no part of that force?

A. That is true, your Honor.

Q. All right. Now, when you—

Mr. L. S. Lyon: You just unscrew that.

A. You handle that in very much the same way.

[192]

Q. By the Court: Now when you move this it has no effect on the button?

A. You see that there is slight movement of the button up and down. But what I was getting at, your Honor—

Q. Where is there any slight movement?

A. This button out here, I can see that it is slightly moving up and down.

Q. I can't feel it.

A. When you hold this down you notice where that part of the lever, the lower part of the lever, comes with relation to that little hole there. If we

(Testimony of LeRoy J. Leishman.)

were to turn this you see there is a slight movement up and down.

Q. I can't feel it.

A. Well, it is slight. However, the thing I was getting at in answer to Mr. Lyon's question, that test that I prescribed had to do with treadle-bar devices and I have never stated that such a test would indicate that anything else other than a treadle-bar device might infringe the patent; and that is only one test.

Mr. L. S. Lyon: That completes the cross examination, your Honor.

The Court: Any further examination, Mr. Flam?

Mr. L. S. Lyon: Oh, I have one further question.

Q. I asked you if you would lay out or examine the drawing of your device, of your reissue patent, and determine whether or not as there shown, according to the proportions [193] there shown, the single rocker would accommodate more than one tap-pet assembly. Did you do that?

A. I didn't do it because I got the impression that the Judge considered that that was irrelevant; that I relied upon the drawings and specification in general and that was an irrelevant detail.

The Court: There was no requirement by this court for him to measure it out.

Mr. L. S. Lyon: Well, we can establish it by our own witness, your Honor.

(Testimony of LeRoy J. Leishman.)

Redirect Examination

Q. By Mr. Flam: Mr. Leishman, just to correct one thing you said yesterday; I think when Mr. Lyon showed you Exhibit 8 he asked you whether there were about 50,000 of these devices that were sold.

The Court: 50,000 buttons, wasn't it?

Mr. Flam: That is what I wanted to correct.

The Court: I understood his testimony that he received a royalty on each push button.

Mr. Flam: Yes.

The Court: And there were 50,000 push buttons.

Mr. Flam: Well, I think there is an error there.

Q. What did you mean by that, Mr. Leishman?

A. I believe that I stated that we had received royalties on approximately 200,000 buttons. But I understood [194] Mr. Lyon later, in bringing that matter up, to refer to 50,000 of these devices and I had just assumed that he had divided 200,000 by 4 and arrived at 50,000; so I didn't see that there was any especial disagreement there. But we can clarify it, that I said I received royalties on substantially 200,000 buttons.

Q. Some of these devices such as Exhibit 8 might carry a larger number of buttons than 4, is that what you mean?

A. That is correct. Some of these have been made with 6 and some, I believe, with 8 buttons.

Q. You have been asked quite extensively about

(Testimony of LeRoy J. Leishman.)  
what you consider to be your invention in this patent. Can you state when you applied for the original patent of which reissue 20,827 is a reissue, what structure did you intend to claim in that patent.

A. Well, I intended—

Mr. L. S. Lyon: I think, of course, it is what he did claim that is pertinent. I do not know what his unexpressed intention would have to do—

Mr. Flam: We have had a lot of evidence on that, your Honor, on what he intended.

The Court: You certainly have been exploring this man's mind.

Mr. L. S. Lyon: I suppose he had better go ahead and finish it, then.

A. I intended, of course, as I think anyone does in [195] soliciting a patent, to claim everything, and if necessary, to claim the various features and combinations rather broadly so as not to have to be concerned with particular details. You generally get into details in claims when broad claims have been rejected, and then you get down to more details.

Q. By Mr. Flam: Did you intend to exclude from the scope of your invention the idea of having the two axes of the tappet rocker coaxial or the idea of having the top of the tappet at least project into an opening in the rocker?

A. No; I didn't intend to exclude that.

Q. In other words, you intended that that kind

(Testimony of LeRoy J. Leishman.)

of a construction would be covered by the original patent, is that right?

A. Yes; and I think the original patent as drawn did cover it that broadly and the claims in the re-issued patent covered it that broadly.

Q. You mentioned in your cross examination competitors, I think, of Crosley that had utilized somewhat the same construction, especially this matter of coaxiality. Do you have any samples of those devices here to show the court?

A. I do. I think they are in the box on the far end of the table there.

Q. Is that it? A. That is it. [196]

Q. You might show counsel these as you pick them up, opposing counsel.

A. Here is a device—

Q. Let Mr. Lyon see it, too.

A. —that came on the market, as far as I know, in the spring of 1938; and in part to verify that statement I have a magazine—

Mr. Flam: Just a minute. I would like to have the clerk mark this for identification as plaintiff's exhibit.

Mr. L. S. Lyon: Whose device is that?

Mr. Flam: Well, I will bring that out.

A. I think it is a General Electric—I mean General Instrument Corporation. I beg your pardon.

The Clerk: For identification, you say?

Mr. Flam: Yes.

Mr. L. S. Lyon: While we are identifying things,

(Testimony of LeRoy J. Leishman.)

I forgot to have identified this Crosley tuner which the witness said he had not considered, or determined, or had any opinion as to whether it was an infringement.

The Court: Have it marked for identification so the record will be complete.

Mr. L. S. Lyon: Yes. That will be defendant's Exhibit F for identification.

Q. By Mr. Flam: I am sorry I interrupted you. What were you going to say about this Exhibit 17 for identification? [197]

A. I was going to say, first, that this device apparently came on the market in the spring of 1938 and subsequent to the introduction of the Crosley tuner; and in verification of that I have a copy of "Electronics", a leading technical—of May, 1938. This is, I think, the leading technical radio magazine. And on page 67 is a part of a section having to do with new products. There is a picture of this General Instrument device.

Q. Now will you explain what—

The Court: The article should be either marked for identification or admitted, I don't know which.

Mr. Flam: Yes.

The Court: Is there any objection to its admission?

Mr. L. S. Lyon: No. As I understand it, you are just proving that numerous other people are making tuners of the kind that you contend conflict with.

(Testimony of LeRoy J. Leishman.)

your patent; and that all of them were put on the market after that Crosley tuner and that these various parties are refusing to recognize this patent?

Mr. Flam: Well, that might possibly be an inference; but of course, we are introducing it for the purpose of showing that the entire field in connection with push button tuners took a new lease on life when this principle of coaxiality became known. Whether they copied it from Crosley or whether they got it otherwise is beside the point.

Mr. L. S. Lyon: I think it is going to be pretty [198] remote. I don't know what your Honor is going to make out of this, but if it has any bearing I do not care to object to it.

The Court: The court is looking for a liberal education.

Mr. Flam: I offer that page, only the page, page 67.

The Witness: I might say on this particular—

Mr. Flam: Excuse me just a minute. Page 67 of the issue of May, 1938, of the magazine "Electronics".

Mr. L. S. Lyon: That is exhibit what?

The Clerk: Exhibit 18.

Mr. L. S. Lyon: And the model was Exhibit 17?

Mr. Flam: For identification.

Q. By the Court: This one marked 17 is still different in that what you might call a rocker here

(Testimony of LeRoy J. Leishman.)

is, in a sense, a cradle and the tappet is made to fit that cradle?

A. You may notice, your Honor, that on the outside edges of the cradle there are some marks where the tappets or cams have engaged it; and you will notice that the center part of the tappet is really free from engagement with the cradle and that actually the points of engagement are on the opposite sides of the rotational axis of this rocker. And my point in showing this is that even in this very different form of rocker, that nevertheless pains have still been taken to achieve that feature of coaxiality, and that the pivoting point of the lever or of the tappet [199] member in this case is still on the axis of the rocker that turns the unit.

Mr. L. S. Lyon: It seems to me, your Honor, that we are getting into something here which the court may want to consider advisedly before it gets in. These people that are manufacturing these various other styles, of course, are not represented here in court; and for your Honor to conclude that these have any effect one way or the other on the patent you would almost have to be adjudicating something as regards them. And usually—

The Court: Do not worry. I am only going to adjudicate one case and that is going to cause me enough trouble without passing on others. It seems to me the effect of these offerings at this time is to

(Testimony of LeRoy J. Leishman.)  
show the more or less universal practice of following this coaxial movement.

The Witness: That is right, your Honor.

The Court: Why introduce a number of these? Why? What would be accomplished by it?

The Witness: I just wanted to show that, no matter what sort of construction or form the rocker may take or the tappet may have, they still attach great importance to this matter of coaxiality and so design the parts as to get that particular element and relationship into the device.

Q. How many concerns are making these push button type radios now in the United States?

A. A good many concerns, your Honor, by their tuning [200] apparatus from some outside parts manufacturer; but the majority of the radio manufacturers in the United States have used some form of tuner in which these principles that we have discussed have been embodied. Some of them have made their own tuners and others have bought licensed tuners and others have bought cheaper tuners on the outside that have not had to pay royalties and therefore are cheaper.

Here is another tuner, your Honor, which you will no doubt recognize as the treadle bar and the tappet. I have succeeded in loosening one of these cams and you will notice—

Mr. Flam: May I interrupt? We might as well

(Testimony of LeRoy J. Leishman.)  
mark that for identification. That is Plaintiff's Exhibit 19 for identification. Go ahead.

A. You will notice that on that particular device, your Honor, that still the center of rotation is arranged on the axis of the rocker. It appears that none of them would consider a device without using this important feature [redacted] I have introduced into the automatic tuning [redacted].

Mr. L. S. Lyon: Wait a minute. Let us find out. Let us identify who these devices are made by. Just bringing in a device here does not mean anything?

The Witness: May I make a suggestion?

The Court: This one here, you may mark that for identification.

Mr. L. S. Lyon: Whose device is that? [201]

The Witness: May I make a suggestion on that point, since you—

The Court: Just answer the question. Whose device is this?

Q. By Mr. Flam: Whose device is this? That is Exhibit 19. [202]

A. I think that is a Radio Condense Company device. I might suggest, if there is any thought that this might in any way reflect on these companies that we not identify them by the name of the manufacturer but merely as axial tuners.

Mr. L. S. Lyon: I think, if we are going to have them received in evidence, we ought to know whose they are.

(Testimony of LeRoy J. Leishman.)

The Court: I am not going to have a group of them. You have introduced a couple of them and I think that is sufficient now.

The Witness: Here is one totally different, your Honor, that still has that feature. This is the last one I intended to introduce.

The Court: All right.

A. Here is one in which the rocker is placed right on the condenser blades. This is a condenser that runs through an arc of about 80 degrees. Here is one arm of the treadle and here is another arm of the treadle over here. You will notice that the treadle bar on this particular device does not have to be open, so they made an opening in the tappet member so that they still can make those parts coaxial. If I press down this button I turn this and you will notice that it turns as a unit because the axes are still in line.

Q. Where are they in line?

A. This is what you might call a phantom axis like [203] the earth.

Q. That may be true, but the axis is not coaxial to the same extent that your patent is?

A. I think it is, your Honor, because it is so arranged that the axis around which this tappet moves during adjustment, the center of its rotation, the center around which it rotates, is right within the center of rotation of that rocker.

Q. They move together. Their movement is to-

(Testimony of LeRoy J. Leishman.)

gether, but in all these others you have pointed out the fact that this coaxial here is down; and if I understand what "coaxial" means, it is the same as if one axle would run through both of those. In other words, these indicate that the axis of the plunger or lever or push button here brings the axis of the—what do you call this? A. The tappet.

Q. —the tappet down so that its axis ties in in the sense of the axis of the rocker.

A. That is true.

Q. Now, the axis of the tappet in this case is above. While it is true that the movements work together and you may call that coaxial to that extent, that the axis of one acts directly on the axis of the other—

A. I think I can explain that, your Honor. You can see that—

Q. I can see how it works. [204].

A. Can you see that does move around the center?

Q. Yes; I see that does move around the center.

A. But it is a phantom center; the center is not actually there physically, but it does move around some point in space about out here. That is the center around which it would rotate.

Q. You mean it is not tied in in any way?

A. Well, there isn't a physical part down here.

Q. Well, is there a physical part above?

A. There is an arcuate portion out here, sort of a crescent or cradle, against which that rests.

(Testimony of LeRoy J. Leishman.)

Q. I know, but this works in here. Is that fastened in there or simply loose?

A. It is held in there with a little spring.

Q. This spring, does that hold it?

A. I think it does, your Honor.

Q. All right; we will see. Let me take your screw driver. Now, it is still fastened in there. There is a bar across the tappet that the tappet works on instead of a definite screw through there; but it has the same effect, it rests there and pivots on the part here that connects the two sides of the tappet.

A. That has what you might call an external pivot, but I think you will recognize, your Honor, that we can tell—it is better when it is free—that when that rotates it nevertheless rotates around the center. Anything [205] that rotates has a center of rotation.

Q. Yes, certainly.

A. And this was designed that that center of rotation when you push that button down is right in line with the center of rotation of that treadle.

Q. It moves along with it. This device here is exactly what I was driving at yesterday, when I asked you the question on your patent as to whether or not the tappet could not be rearranged so you would have the same effect. Now, you did not seem to think so, but here this tappet does not extend into the rocker at all but it is above it, and yet the movement of the rocker is transposed just the same. All right, that is all.

(Testimony of LeRoy J. Leishman.)

A. May I clarify the question you asked me yesterday in the solution to this? I think the question you asked me yesterday, your Honor, was that if you turned this over so that the flat side was down, if the device would not work the same; and I stated that it would not; that it would be necessary to so arrange those parts that the center around which this moved would be in line with the center around which the treadle moved.

The Court: Just a moment. Let us have this marked for identification, so we will know what we are talking about.

Q. By Mr. L. S. Lyon: Will you state whose device that is? [206]

A. I think that is also the Radio Condenser Company tuner.

Mr. Flam: It is marked "Radio Condenser Company."

The Clerk: It will be 20 for identification.

The Witness: Does your Honor mind if I try to elucidate this point about that axial feature by this illustration? Suppose this wheel on the outside of this device were arranged with some sort of an external guide and it were cut out in the center entirely and were supported on the outside rather than by the shaft in the center so that you could still turn, it would still nevertheless turn around a center of rotation or an axis which will be in the center.

The Court: I do not require any explanation on

(Testimony of LeRoy J. Leishman.)

that point I recognize that anything that turns has an axis, either an actual axis or one that will be a center there some place, or, as you call it, a phantom axis upon which it turns. But this Exhibit 20 has an axis, a transposed axis in a way, or a tappet that I asked you about yesterday afternoon, and referring again to your Exhibit 7, your tappet. Of course, you talk about the equidistance here between what your diagram calls Q to the center of your rocker, and the pivot on your tappet falls in a place that would be classified as the center of your rocker, wouldn't it?

A. That is right, your Honor.

[207]

Q. So that if you theoretically would extend the axis of the rocker directly through the tappet it would fit in the same place that the pivot of the tappet now fits in?

A. That is right, your Honor.

Q. But in 20, of course; that is not true.

A. I think, your Honor, that if you will take that and play with it you may come to that conclusion. You see, that tappet is supported—

Q. Well, I can see the tappets here and I can see your rocker. That is all, gentlemen. I guess I have asked too many questions about that now.

Q. By Mr. Flam: The Crowe Name Plate & Manufacturing Company that you have been talking about is supplying these devices as exemplified here by Plaintiff's Exhibit 8, I believe,—yes. Can

(Testimony of LeRoy J. Leishman.)

you mention the names of Radio manufacturers that have bought devices from the Crowe Name Plate Company?

A. Of this general type, you mean?

Q. Of this general type of mechanism.

A. There is the Galvin Manufacturing Company, manufacturers of Motorola; Zenith Radio Corporation; Packard-Bell, here in Los Angeles; the Troy Radio Company. I may not have the exact corporate names of these concerns. Troy Radio Company or Corporation, here in Los Angeles; the Trav-ler Corporation—I do not recall their headquarters—the Arvin people—by the way, Arvin is the [208] trade name, the manufacturers of the Arvin radio are the Noblett-Sparks Corporation. I think those are the principal users of this type of device that purchase licensed tuners from Crowe.

Q. By the Court: You say the Zenith Corporation use your device? A. Yes, your Honor.

Q. Have they abandoned the other?

A. Oh, they abandoned that years ago. [209]

### Further

#### Redirect Examination

Q. By Mr. Flam: Mr. Leishman, I think yesterday afternoon on cross examination you were asked regarding the interpretation of the term "means movable about a pivot and acting upon operation in one direction to slidably engage either arm of said rocker and push it in one direction to

(Testimony of LeRoy J. Leishman.)  
angular position" and so on, and you pointed out that that terminology was, as you construed it, related to the tappet No. 61 shown in Fig. 2 of the patent, and I think you said that the Crosley Corporation had used similar terminology in connection with the description of the tappet in their device. Have you anything to substantiate that with?

A. Yes; I have a copy of the file wrapper of the patent application that the Crosley Corporation filed on their structure.

Mr. Flam: I will ask the clerk to mark it for identification first. [211]

Mr. L. S. Lyon: May I see it, please?

A. That is a certified file wrapper, by the way, certified to by the Patent Office as to its correctness.

Mr. L. S. Lyon: You go ahead and we will look it over.

The Clerk: For identification did you say?

Mr. Flam: Identification.

The Clerk: 21 for identification.

Q. By Mr. Flam: Will you explain to the court what this document is?

Mr. L. S. Lyon: The document speaks for itself, does it not?

The Court: He can tell the court generally what it is, without referring to its contents.

A. Well, generally, it refers to the Crosley structure that we have generally agreed upon as being one of the forms involved in this suit. It is a patent application that they filed on certain features of that structure.

(Testimony of LeRoy J. Leishman.)

Mr. Flam: Now, just a moment. In order to—

The Court: As a matter of information, was the patent granted?

Mr. Flam: The patent is not granted and I want Mr. Leishman to explain. I may say this, and I do not need Mr. Leishman for that: File wrappers and contents of patents are available to the public after a patent is granted, by application to a commissioner of patents. That file wrapper and contents includes not only the original papers [212] filed but succeeding papers such as rejections by the Patent Office and responses by the applicant; and this file wrapper that Mr. Leishman has is that kind of a thing, except the application has not matured into a patent.

Q. How do you happen to have this file wrapper, Mr. Leishman? How were you able to get it?

A. An application that I owned has been involved in a patent interference in the Patent Office with this application; and whenever such interferences are declared and proceedings reach a certain point it is possible for the different parties to an interference to secure copies of each other's file wrappers; and that is how I happened to have this.

Q. That file wrapper refers to an applicant by the name of—? A. Howard J. Tyzzer.

Q. Will you spell that for the reporter?

A. Tyzzer is spelled T-y-z-z-e-r.

Q. Does it show any assignment of the application?

(Testimony of LeRoy J. Leishman.)

Mr. L. S. Lyon: It speaks for itself.

The Court: I think the record speaks for itself.

Mr. Flam: Very well.

Q. Will you point out in the file wrapper where this terminology or similar terminology is used to designate that tappet?

Mr. L. S. Lyon: I understand this is just for [213] convenience, because the document speaks for itself. You can point it out just as well as he can.

The Court: It does not make any difference, it will save the court trying to find out if its attention is called to it.

Mr. Flam: Yes.

Mr. L. S. Lyon: I have no objection to that if he will just indicate by page.

The Court: Let him read it and it will save the court the trouble of even reading it. All it will have to do is to listen.

A. Yesterday I was examined at some length as to the meaning of my terminology, and anyone in preparing a claim tries to use terminology that will be generally understood. And I stated that terminology similar to that that I had used in claim 5 to designate the tappet had been used in the Crosley application to describe that tappet. And I call your attention now to page 23, which is the first page of a communication from the attorneys for Mr. Tyzzer. I am trying to find the date of this particular communication.

The Court: The date is up here.

(Testimony of LeRoy J. Leishman.)

A. Oh, are they up here?

The Court: December the 3rd, 1938.

A. 1938, and the communication is signed by Allen & Allen of which firm Mr. Yungblut of counsel for the defense is a member. Now, in this communication in answer to one [214] from the Patent Office certain claims have been cancelled and the attorneys for Mr. Tyzzer introduce various new claims. This is on date of December 3, 1938, approximately eight and one-half months after the interview that I had with Allen & Allen in Cincinnati in which they attempted to indicate that what I called a means—"a means movable about a pivot"—

The Court: Which claim are you referring to?

A. Claim 5. In claim 5 at the time of that interview—

The Court: That was the time they talked you out of it, wasn't it?

A. Well, they didn't talk me out of it but they convinced me finally that it was possible, if you tried hard enough, to put that kind of an interpretation on it. And I stated that similar terminology which I naturally used was the same kind of terminology that they had used in describing that member, and therefore that that was rather logical terminology and that there should not be any particular ambiguities as to what part it referred to.

On claim 21—understand your Honor, I am not

(Testimony of LeRoy J. Leishman.)

saying that these are exact terms but it is the same general terminology. In claim 21 that part is referred to as "a positioning member pivoted on said plunger." If it is pivoted it has to be capable of moving. In the next, in claim 22, it is referred to as "a positioning member pivoted on said plunger." In claim 23 it is referred to as "an [215] arm centrally pivoted on said plunger." In 24, it is "an arm centrally pivoted on said plunger." In 24, "an arm".—

The Court: In 25.

A. In 25, "an arm pivoted on said plunger." And in 26 it states "and adjustable means on said plungers for swinging said member"—the treadle bar—"to predetermined angular positions, said means"—being again the adjustable means—"comprising an arm pivoted centrally to each plunger." In claim 27 similar terminology is used, "said means comprising an arm pivoted centrally to each plunger."

In 22—

The Court: 28.

A. 28, thank you, "said means comprising an arm pivoted centrally to each plunger."

In claim 29, "said means comprising an arm pivoted centrally to each plunger." In claim 30, "said means comprising an arm pivoted centrally to each plunger." Claim 31, "and positioning means pivoted to said plunger, said positioning means comprising a pair of arms." In claim 32, "positioning

(Testimony of LeRoy J. Leishman.)

means pivoted to said *plaunger*, said means comprising a pair of arms." And claim 33, "a positioning"—

The Court: That is sufficient.

Mr. Flam: I offer in evidence this file wrapper of Howard J. Tyzzer No. 192,258.

The Court: What materiality has that in this case? [216]

Mr. Flam: Just to explain what he has said.

The Court: I know but it is identified and, if we admit it in evidence, the whole thing is in evidence. Of what advantage is that?

Mr. Flam: No particular advantage. I think we can let it go at that.

The Court: I don't want to foreclose you from anything but here is a long document that I don't know anything about and I don't know what materiality it has to the case at issue except to illustrate the points that you are making, which you have done. The fact is your record is now complete.

Mr. Flam: You may cross examine.

#### Recross Examination

Q. By Mr. L. S. Lyon: Mr. Leishman, you have referred to the fact that there are a number of these mechanical push button tuners on the market using this coaxial principle. There are a great many other kinds of tuners on sale in different radio receivers that are not of that type, is that not true?

A. That is true.

(Testimony of LeRoy J. Leishman.)

Q. There are a great many styles of tuners, are there not?

A. Well, I wouldn't say a great many but there are several. [217]

Q. You have actually been paid on 200,000 buttons? That is the total number of buttons that you have been paid royalty for since your invention, up to date, is that correct?

A. Embodying the features under discussion in this suit; yes; that is substantially correct.

Q. How long has it been since you last received any royalties? A. Within the last 30 days.

Q. When did you receive the first ones?

A. The royalties are generally payable quarterly and I think I received my first royalty check in January, 1939.

Q. During that same period how many push button tuners—I had better change that. During that same period how many buttons do you suppose were employed in the radio industry in new sets manufactured during that period, or new tuners?

Mr. Flam: I don't know whether there is a foundation for that. I don't think this witness is qualified to answer that question.

The Court: Then, he may say so if he doesn't know.

Q. By Mr. L. S. Lyon: According to your best estimate.

A. The nearest estimate, of course, would have to cover a broad range. I would say, referring to tuners or sets rather than to buttons—

(Testimony of LeRoy J. Leishman.)

Q. I would like to get a comparable figure so we can have an idea what percentage of the total number is [218] represented by these 200,000 buttons which you referred to.

A. I would say between 8,000,000 and 16,000,000.

Q. Buttons? A. That is right. [219]

Q. During the same period that you were receiving payment on 200,000—that is about the right figure? A. That is about right.

Q. —you undertook to design a tuner for the Gilfillan Company here recently, did you not, here in Los Angeles? A. I did.

Q. You didn't use this coaxial feature and rocker plate feature that you have referred to in your testimony for them, did you?

A. No; I didn't.

Q. You designed for them something entirely different?

A. Not entirely different; no. It has some features in common.

Q. I hand you a tuner and ask you if you can identify this as one of the tuners Gilfillan manufactured pursuant to your design for them of what you thought a tuner ought to be.

Mr. Flam: May I see it just a moment?

The Court: May I ask what materiality that has in the case?

Mr. L. S. Lyon: I want to show, your Honor, that there is nothing critical about this feature that the witness has been relying on. I don't want it

(Testimony of LeRoy J. Leishman.)

blown up to any disproportionate size here in this industry. Unless it is reduced to its proper place in the industry, anyone might assume some importance for it to which it is not [220] entitled.

A. Yes; this is one of the tuners that I designed for Gilfillan.

Mr. L. S. Lyon: We will ask that be received in evidence as Defendant's Exhibit G.

Q. When did you design this tuner, Exhibit G, for Gilfillan to manufacture and sell on their radios?

A. I designed that in the spring of 1939.

Q. By the Court: How do you set this one?

A. On that one, your Honor, this screw here is loosened, this screw that projects laterally from the shaft. That is loosened and it releases the side clamp or releases the pressure on all of these positionable members.

Q. And then you can put it in any position you want to?

A. Yes; by holding the lever down and tuning it in while the cams are loose on the shaft.

Q. By Mr. L. S. Lyon: Is this last mentioned tuner, Exhibit G, in your opinion as good a tuner as the one in the patent in suit here?

A. Yes.

Mr. Flam: I object to that as irrelevant and immaterial.

Mr. L. S. Lyon: In these patent cases the court is entitled to know how important, how vital or how

(Testimony of LeRoy J. Leishman.)

consequential the thing is that it is thinking about.

The Court: I still don't see the materiality of it. I think to ask a man which patent he thinks is the most [221] important wouldn't be of much value to the court.

Mr. L. S. Lyon: Well, he already answered. I have no more questions on the subject.

The Court: What was the answer?

Mr. L. S. Lyon: He said that this was just as good as the other one, or I think that is what you said. Wasn't it?

A. Of course, in all things like that you have to consider the particular use to which it is put.

The Court: This may be marked for identification, then.

Mr. L. S. Lyon: I have offered it as Exhibit G, your Honor.

The Court: All right.

Mr. L. S. Lyon: You referred to the fact that the Zenith Company is using some of the tuners made by the General Instrument Company, is that correct?

A. The Crowe Name Plate & Manufacturing Company.

Q. How long have they been doing that?

A. I couldn't say with any accuracy. It seems to me that they began using some somewhere in the summer of 1939, and as far as I know they are still purchasing them.

Q. Do you know whether they are or not?

(Testimony of LeRoy J. Leishman.)

A. No; I don't.

Q. Do you assert that they have recognized your patent rights that are here in issue or that they were caused to [222] buy those devices from your licensee because of any recognition of your patent rights? A. I didn't make that statement.

Q. You don't make it, do you?

A. No; I don't make that statement.

Q. Are we to understand that during the period that they were using these devices from the Crowe Name Plate & Manufacturing Company those were the only tuners they were equipping their sets with?

A. No.

Q. What percentage of their sets were they putting the Crowe tuner on?

A. I would have no way of knowing that.

Q. You know it is a minor percentage, do you not? A. I think that is true.

Q. As a matter of fact, the Zenith people buy tuners from various tuner manufacturers and there is nothing more to be made out of the fact they bought some from the Crowe people than just the fact they did! Isn't that as far as you go?

A. I might go a little further than that. So far as I know, the tuners that they buy from Crowe are the only mechanical tuners that they use.

Q. They use those on their cheap sets or on their expensive sets?

A. I have never seen one of their sets with one of [223] those tuners in.

(Testimony of LeRoy J. Leishman.)

Q. How long to your knowledge did the Zenith Company use the tuner of the type shown in Exhibit 3?

A. I think it was approximately two years but I wasn't following those developments very closely then.

Q. At that time they were one of the leading manufacturers and sellers of radio receivers, were they not? \*A. Yes.

Q. And did they use these tuners of this Exhibit 3 type on their full line?

A. I don't know whether they did or not.

Q. They used them on a large number of their models at least? You know that, do you not?

A. A large number but I have no idea whether it was a small or a large percentage. I do know, however, that the last year they used them the same type of set could be bought with or without the tuner and that the least price of the set with the tuner was about \$15 higher than the corresponding set without the tuner.

Q. You don't deny that there were many thousands or tens of thousands of radio receivers sold by the Zenith Company during the period they were employing this tuner of Exhibit 3, do you?

A. No; I don't deny that.

Mr. L. S. Lyon: That is all.

Mr. Flam: That is all. [224]

Q. By the Court: Mr. Leishman, what created a demand for these automatic tuners all of a sudden?

(Testimony of LeRoy J. Leishman.)

A. I think, your Honor, that would be a very difficult question to answer. I don't think I could answer it. I know that after several years, in which as far as I know none were used, the telephone dial type appeared in 1936 and it appears to me that the reason they began to be used, then was because there had been certain mechanical tuners in existence that the manufacturers had invented but they were not very accurate. And it was about that time circuits were developed that would electrically compensate for the mechanical inaccuracies of those tuners and then it was possible to use this telephone dial type of tuner that came onto the market then. And all of those sets—

Q. Let me ask wasn't it the fact that they started to use radios in automobiles that created the real demand?

A. The first tuners that came out in 1926 of this telephone dial type were in household sets and I don't think that—

Q. But when did they start to use radios in automobiles?

A. The first that I saw were in, I think, 1929 but I am not sure how accurate that is.

Q. It has only been during 1937, 1938 and 1939 that there has been any great use in that respect, is that not true?

A. The automobile radios came in about 1929 and, as far as [225] I know, the first automobile radios that were equipped with mechanical auto-

(Testimony of LeRoy J. Lelshman.)

matic tuning were the receivers of the Crosley Corporation. I don't believe that the other mechanical tuners, the so-called telephone dial type, were used in automobile sets but I am not sure of that at all. I never saw any.

Q. Do you know whether it is not a fact that the real extensive use of radios in automobiles developed during the last two or three years, where it has become almost universal now to have a radio in your car?

A. I don't believe I understand your question, your Honor.

The Court: Read the question. Maybe it is not intelligible.

(Question read by the reporter.)

A. I think that is true, your Honor.

Q. Did that fact create a demand for an automatic tuner? Was there any relation between the two as far as you know?

A. I don't think there was much of a relationship because the larger part of the automatic tuners, by far, used in household sets and the first ones that came out during this last era or trend of the mechanical automatic tuning came in in 1926, were in household sets.

Q. I notice some of the advertisements that you have called attention to in these magazines of the defendant's [226] sets lay stress upon the safety features. And I was trying to find out whether or

(Testimony of LeRoy J. Leishman.)

not this safety feature—in other words, you recognize and I recognize in driving a car if you are manually trying to find your station it is creating a hazard that would not be there if you had an automatic tuner?

A. That is certainly correct, your Honor.

Q. And whether or not the use of a radio in the automobile created a demand for a tuning device that would eliminate the hazards of detracting the attention of drivers?

A. Well, I think that that factor was responsible for the sale and use of a large number of automatic tuners; but I don't know whether that factor would be large enough to be an important factor in creating a demand.

Q. All at once, here in the last two or three years, developed automatic tuners and they are in almost universal use now, except by people like me who have a radio that I am still using that is ten years old, otherwise modern people would have an automatic tuner now.

A. I think that they were developed originally and used mostly in household sets. But in line with your thinking along that line, your Honor, I think that push button tuning has been responsible for the sale of large numbers of automobile receivers that would not have been sold otherwise; that it has greatly stimulated the automobile receiver business when it became possible for automobile [227] owners to have a safe type of tuning rather than the

(Testimony of LeRoy J. Leishman.)

other type that I have always thought was very hazardous.

Q. I know, but I was just trying to find out if you knew why it was that, in an industry that is an important industry like the radio industry, that has had a good many years of background and experience now, why it was that all of a sudden all of them started to use automatic tuners.

A. Well, I think I can—

Q. And, as you have shown here, there are different types like you, yourself, have made more than one type.

A. I think I can answer that question, now that I have given it some thought, your Honor. The tuners that previously had been used in the radio industry were complicated or bulky or large like the Zenith device, that added \$15 to the retail price of some of the sets, or else they were of complicated electrical structure, and there have been some mechanical tuners designed, particularly this telephone dial type, but it was not possible to use them. The industry, I think, would have been glad to have used them but the automatic frequency control circuits were developed at that time by means of which, if you got a receiver almost in tune, this circuit would pull it in tune. Some manufacturers referred to that type of tuning as magnetic tuning because it would pull it right in tune. So with that circuit type available it was possible to use those previous mechanical tuners, that is, previous to the

(Testimony of LeRoy J. Leishman.)

[228] introduction of my principles, that were not particularly accurate. They would get almost in tune and then the circuit would pull it into tune.

Q. In other words, the developments in the radio industry made it feasible to use an automatic tuner that they could not use before?

A. That is it, your Honor.

The Court: That is all.

Q. By Mr. Flam: Do you want to say anything further about this Gilfillan development that you have been asked about on cross examination? I am referring to Exhibit G.

A. This type of tuner you may notice, your Honor, is essentially a lever-operated tuner, but nevertheless a push button tuner in which the stroke is comparatively short, these buttons that stick out in front of the radio set; and it would look fairly neat. But the thing that I would like to say in conjunction with this type of tuner and the other types, that while there have been other types of tuner on the market besides those having the coaxial features or other features covered by the claims of my patent, that those using the treadle bar have constituted during the time that the mechanical automatic tuning has been used about three-fourths of the total number of automobiles—or of the total number of tuners used. As far as I have been unable to tell in examining sets on the market, that has been up until at least the last year, I would say, [229] the most common and ordinary type of tuning, those

(Testimony of LeRoy J. Leishman.)

with the fappet and treadle bar arrangement in the manner that we have discussed. I guess that is as much as I want to say on that.

Mr. Flam: That is all.

Mr. L. S. Lyon: That is all, Mr. Leishman.

Mr. Flam: I would like to call Mr. Loehr to the stand. [230]

LESLIE K. LOEHR,

called as a witness on behalf of plaintiff, being first duly sworn, was examined and testified as follows:

The Clerk: Will you state your name?

A. My name is Leslie K. Loehr.

Direct Examination

Q. By Mr. Flam: What is your present occupation, Mr. Loehr?

A. I am a machine designer.

Q. Will you state in general what your past experience has been in connection with design of machinery or analogous materials?

A. Well, in addition to eight grades of school and high school I have had three years schooling in engineering subjects, mechanical engineering subjects, at the University of Washington. I have had three years apprenticeship in machinery building and tool and die design; and the past 15 years I have been actively engaged in the development of inventions and patents and machines and tools and dies.

(Testimony of Leslie K. Loehr.)

Q. Where are you at present employed, Mr. Loehr?

A. I am employed as methods and production engineer at the Lockheed Aircraft Corporation, Burbank, California.

Q. I forgot to ask you where you resided. Will you state that, please? [231]

A. Oh, I live in Los Angeles at 6108 Saturn Street.

Q. Have you studied the patent in suit here, reissue No. 20,827?

A. Yes; I have studied this patent.

Q. You understand what it discloses?

A. Yes.

Q. I show you this radio set chassis which has been furnished to me by opposing counsel some months ago in connection with answers to interrogatories, and which I shall ask the clerk to mark for identification.

The Clerk: Exhibit 22 for identification.

Q. By Mr. Flam: Have you studied that set especially with regard to the push button tuner?

A. With regard to the tuner; yes.

The Court: Has the red tag any significance?

Mr. Flam: I think it is more in the nature of some instructions on how to install the set than anything else. I don't think it is dangerous.

Q. Is that tuning mechanism in that Crosley set similar in structure to that exemplified by Plaintiff's Exhibit 10?

(Testimony of Leslie K. Loehr.)

A. I would say that the push button mechanism is substantially the same.

Q. Using either of those two exhibits, Exhibit 10 or Exhibit 22 for identification, will you explain to the court the process of adjusting, or, rather, the structure [232] of the Crosley push button mechanism, having in mind, of course, that we know something about it already, but particularly the manner in which the set is made?

A. He is pretty analytical, his Honor is, I think. Outside of the adjustment—maybe I can explain that to you and the necessity of loosening the screw which tightens the tappet.

Q. By the Court: That releases the tappet so you can set it?

A. That is right; so you can adjust the dial.

[233]

Q. For instance, if you want it over at 1500 you set it there and you tighten up your screw?

A. That is right; you tighten up your screw. It is done by throwing this out.

Q. And you throw it into 1500?

A. That is right; and it brings it back.

Q. By Mr. Flam: Have you made any comparison of the Crosley mechanism illustrated by those two exhibits, 10 and 22; with the mechanism illustrated in the Leishman patent in suit? I want to have you use the chart in that connection (placing chart on easel). Is that all right for you, Mr. Loehr?

(Testimony of Leslie K. Loehr.)

A. Well, yes. It might be necessary to—

Q. I will give you the pointer here. Did you make such a comparison of the Crosley tuning mechanism?

A. Yes; I have made such a comparison.

Q. Will you explain the similarities of the two mechanisms by the aid of the chart?

A. The chart is quite self-explanatory, but perhaps for the benefit of the court. On the right over here we find the—

The Court: I recognize—

A. —all those elements.

Q. I recognize the plaintiff's five figures there of his patent.

A. The rocker and the tappet. [234]

The Court: In plaintiff's Exhibit 7. I recognize those.

A. Do you recognize these as of the—

Q. By Mr. Flam: By "these" you mean which Figs.?

The Court: Referring to Figure C-1,

A. The tappet C-61 and the treadle bar of the rocker C-48.

The Court: Yes; I recognize them.

A. And the opening in the treadle bar for that portion of the tappet which must project into the treadle bar. Here is that white portion that represents the opening.

The Court: Yes; I see what you are referring to.

Q. By Mr. Flam: Will you refer to Fig. C-5 for that?

(Testimony of Leslie K. Loehr.)

The Court: Fig. C-5 represents the—

A. Coaxial.

Q. —the opening that you are referring to here as the coaxial movement? A: That is right.

Q. To permit the coaxial movement?

A. That is right; that is correct.

Mr. Flam: Well, go ahead. I won't interrupt you. Use your own method of exposition.

A. Well, it is more or less obvious from the chart that the main object of the lever is to impart linear displacement to the tappet and movement down of that tappet in contact with the rotor as shown in Fig. L-2 will rotate [235] the rotor to the angular position of the tappet as shown—

Q. By the Court: In other words, the lever is the means by which you bring the tappet in contact with the rocker to bring it into position?

A. That is right.

Q. I can understand that.

A. And over on this side the plunger is used for imparting linear motion.

Q. For the same purpose as in the other case?

A. That is right. One is a substitution for the other.

Q. But they do differ; one uses a plunger and the other uses a lever?

A. That is the only difference. The difference is that the necessity for imparting linear motion to the tappet, of course, is essential.

Q. The similarity of the two is the fact that both

(Testimony of Leslie K. Loehr.)

use a rocker— A. Both use a tappet.

Q. And both use a rocker?

A. And both use a rocker, and both use means for imparting linear motion.

Q. There would have to be a means, wouldn't there— A. That is right.

Q. There would have to be a means used to impart motion? A. That is right. [236]

Q. So the similarity is, is it, that they both use tappets and they both use rockers?

A. That is right.

Q. It is that method, you might say, of a combination of a tappet and a rocker—

A. That is correct.

Q. —that connects up both of these tuners?

A. That is correct.

Q. By Mr. Flam: And what about the relationship between the tappet and the rocker in the fully tuned in position?

A. In both cases—I think your Honor can see that—the axes—

Q. By the Court: It is coaxial?

A. Coaxial, that is right.

Q. By Mr. Flam: Do you have anything to say regarding the—

Q. By the Court: Is there any difference between coaxial and concentric?

A. Well, it depends upon what you are referring to, I mean when those terms are used. Concentric would mean that same shape about the center.

(Testimony of Leslie K. Loehr.)

Q. I know, but when she is brought into place they are not using the axis, are they; they are simply in position?

A. They are in position, excepting their adjustment. Then the axis, of course, must be used. [237]

The Court: And the axis is used for the purpose of adjustment?

A. That is right.

Q. And then it is brought into a definite position, you might say, at rest, a definite position at rest? A. By aid of the cam maybe.

Q. Yes; at whatever angle the rocker may be set? A. That is right.

Q. By Mr. Flam: Is that illustrated on the diagram, Mr. Loehr?

A. Yes. There are two positions of the cam, or, rather, of the rocker.

Q. Reference character?

A. Reference character 48 in Figure L. The rocker is tilted this way.

Q. L-2, you mean?

A. No; this is L-1, and this is the rocker for that. It is set sloping and the—well, let us say, sloping up to the right; whereas, in Figure L-3 it is sloping up at the left or to the left and the tappet happens to be adjusted in Figures L-1 and L-3 at approximately the same angle, and yet when the movement downward to the tappet is given and it finally comes to rest it moves the treadle to exactly the same position in each case.

(Testimony of Leslie K. Loehr.)

Q. By the Court: May I ask, in mechanical work, the fact of coaxial, is there anything unusual about ~~that~~ in [238] your profession or specialty?

A. Well, to use the term "coaxial" loosely; no, I mean, many things are coaxial. I mean, for instance, you have a series of gears on a shaft, all of those gears are, of course, coaxial inasmuch as they all operate about the same center.

Q. The same result could be attained here by the use of a gear, couldn't it?

A. Well, I don't know just what you mean by using a gear here to accomplish this result that we have here by bringing this member coaxial with this member, or tappet 61 to 48—

Q. From a mechanical point of view, you are working at now, you said—what was your present position with the Lockheed?

A. Production and methods engineer for the Lockheed.

Q. And you are studying these matters all the time, aren't you?

A. Yes; we are continuing to study the machines, and inventing new machines.

Q. Trying to?

A. Well, we succeed occasionally.

Q. Sometimes they drop?

A. What do you mean, the machines?

Q. After they succeed; yes.

A. Oh, yes, yes. [239]

Q. But the fact that a combination of parts are

(Testimony of Leslie K. Loehr.)

placed together in a coaxial position, is there anything unusual in that?

A. Not to use the term loosely; no.

Q. How, then—

A. Well, I mean by that, that as far as—well, there are many mechanical elements that are placed coaxial. For instance, this shaft is coaxial with this other shaft when it happens to be down on the same plane. You see what I mean? But now, where we introduce parts that may interfere bodily one with the other it is—well, people just don't do it because you have got to provide for the space for the parts to go in to become coaxial.

Mr. Flam: May I interpose a question that I think his Honor will be interested in?

Q. What is the importance of having this, what is the advantage of having it coaxial, the rocker and the tappet? In what way does it operate in a different manner than what you would ordinarily expect, coaxial or other elements to operate?

A. Well, the advantage is in the adjustment.

Q. Can you illustrate the adjustment by any model that you have?

The Court: Oh, I understand.

Q. You mean the adjustment of placing it at a different angle? [240]

A. Yes. Well, if it is not coaxial it makes quite a difference.

Q. Let us see. Calling your attention to Plaintiff's Exhibit 20 is that coaxial?

(Testimony of Leslie K. Loehr.)

A. Yes; that is coaxial. The tappet is coaxial. It is operating about a phantom center; in other words, it is moving in a path to a center that coincides with the axis of the—

Q. Just what do you understand you mean by "coaxial"? I may be placing too narrow an interpretation upon it in my own mind.

A. Well, the term "coaxial" in this particular case applies to the imposition, let us say, of another part, or which cooperates with another part, so that the two may be moved or rotated about a common axis without any linear displacement of the means for holding the tappet in contact with the rotor or treadle bar or rocker, as it is called.

Q. This one, referring to Exhibit 20, does not protrude through or into the rocker at all, does it?

A. That is right.

Q. It works on the outside edges completely?

A. That is right.

Q. The advantage of the chart, or of Exhibit 7, is in the fact that it does protrude into the rocker, is it not?

A. That happens to be one mechanical embodiment of that feature ~~as~~ that the axis there physically and visually do [241] coincide. In this particular case physically they do but visually they don't.

Q. The result is the same? A. Yes.

Q. But actually they do not?

A. Visually they don't. I mean by that—you can't see the axis of that.

(Testimony of Leslie K. Loehr.)

Q. Yes; I understand that much. But, as I understand it, the coaxial movement—would you call it?

A. Well, the coaxial movement, yes; of the relative parts when they are in contact.

Q. Using it loosely, as I believe you used the expression, it is a more or less common mechanical term in use?

A. I don't know whether I get exactly what you mean.

Q. Here is what I am trying to find out. Is there anything new about the fact this is coaxial? Is there anything new to the mechanical art that anything is coaxial?

A. No; that is true, that there is nothing new in the mechanical art that things are made coaxial because, as I cited, there are plenty of gears on a shaft or pulleys on a shaft and all of those pulleys and gears are coaxial.

The Court: You may proceed.

Q. By Mr. Flam: I think you answered that there is some importance in connection with the setting of the mechanism illustrated by Plaintiff's Exhibit No. 7—[242].

The Court: Do you mean setting it for the different stations?

Mr. Flam: For the different stations.

Q. —to make the axis—

The Court: Is there any claim in this case as to the method of setting?

(Testimony of Leslie K. Loehr.)

Mr. Flam: No; there isn't but there is a description of the manner of setting. Of course, what we propose to show is, if you don't have it coaxial, you are going to run into difficulties in setting. That is the importance of the coaxial relation.

The Court: The only thing is it seemed to be creating a state of confusion here. It has been testified about coaxiality and that coaxial is a phantom and then you have still another device here that is not coaxial.

Mr. Flam: That is right.

The Court: And yet they all have a method of setting and they all work.

Mr. Flam: Well, not quite.

The Court: And the plaintiff contends that the one he has made for the Los Angeles manufacturing concern, the latest one, is just as good as the other.

Mr. Flam: It employs a different invention.

The Court: I realize it employs a different invention.

Mr. Flam: I think we can clear this up.

Q. I will ask, Mr. Loehr, whether you have read this [243] Marschall patent that has been introduced on behalf of the defendant, Defendant's Exhibit D. Have you a copy of it there?

A. Yes; I have a copy here.

Q. In that patent there is a tappet and rocker. I suppose, is that right?

(Testimony of Leslie K. Loehr.)

A. Yes. Figure 14 shows a tappet 44 and a rocker 34.

Q. That tappet of Marschalk and the rocker I presume do not assume a coaxial relationship when the tappet is in complete contact with the rocker, is that right? A. Yes; that is right.

Q. I think we have had testimony about that.

A. Yes; that has been generally discussed.

Q. Can you demonstrate with anything how the Marschalk device would operate if it was actually built?

A. At my suggestion, a Marschalk lever was built at the request of or by Mr. Leishman. I don't know who built it.

Mr. Flam: I would like to have the clerk mark this for identification.

The Clerk: Plaintiff's Exhibit No. 23 for identification.

Q. By Mr. Flam: Can you demonstrate how that mechanism will work in connection with the model Exhibit No. 7?

Q. By the Court: Where is your rocker here?

A. We have to use this mechanism here. [244]

Q. Do you put it right on there?

A. Yes.

Q. By Mr. Flam: Put it right alongside of the Leishman lever so as to compare the operation of it. Will you do that, Mr. Loehr? A. Yes.

Q. That is, install it on the rocker.

The Court: I would like to ask, Mr. Flam, if

(Testimony of Leslie K. Loehr.)  
you still claim, in view of the testimony of the plaintiff in this case, whether the Eibel Process case decided by Judge Taft applies as the rule?

Mr. Flam: I do, of course. In this case we have made what I think is a very important improvement and, therefore, the inventor is allowed some range of equivalents, and this very point I am bringing out now will show—

The Court: The only thing is that the plaintiff himself under cross examination, it appeared to me, tended to narrow his invention and also at the same time narrow the interpretation to be placed upon it.

Mr. Flam: I am not prepared to argue on how narrow the invention must be construed but we do feel that this—

The Court: I am just trying to find out whether you had modified your theory from the time that you filed your pre-trial brief.

Mr. Flam: No; I don't think so, your Honor.

The Court: All right; you may proceed. [245]

Q. By Mr. Flam: Will you demonstrate it?

A. I have mounted Exhibit 23, a facsimile of the Marschalk device, on Exhibit No. 7. I will put this up here so your Honor can see this easier. You will see I want to adjust this.

Q. By the Court: Tell me, first of all, is the tappet loose now?

A. Oh, yes; the tappet is loose. And I desire to adjust this down to the lower end of the scale here.

(Testimony of Leslie K. Loehr.)

By applying pressure to that lever here, I have moved my adjustment.

Q. In other words; you find an angular displacement of the rotor?

A. An angular displacement of the rotor by virtue of pressure applied to the shaft during the process of adjustment.

Q. Isn't that due to the way that that is balanced on there?

A. No. That tappet is in the same relative position as shown in Figure 14. The reason for the movement, of course, is not quite obvious from the drawing.

Q. The general principles are the same, aren't they?

A. The fact that this is used to position the rocker to a definite place when it is locked is the same, that much of it. In other words, we have a tappet which coacts with the rocker to bring it back to the same position as I [246] am doing here.

Q. What about the coaxiality of this?

A. That is not coaxial, your Honor. And, when I wish to adjust this down to the lower end of the dial or either end of the dial, pressure on that lever moves that out of adjustment.

Q. By Mr. Flam: Will you demonstrate that same mode of operation with the Leishman lever?

The Court: I see it.

Q. Due to the fact this is coaxial, it stays in place? A. That is right.

(Testimony of Leslie K. Loehr.)

Q. And the fact that this is not coaxial causes a movement there, as quick as you touch it, that throws it out of balance?

A. That is right.

The Court: All right.

Q. By Mr. Flam: At which end of the adjustment of the rocker does this failure of setting occur in the use of the Marschalk device?

A. It will occur at either extreme end.

Q. By the Court: Suppose I wanted to see it at, we will say, 700, what about it then?

A. At 700 or near the center, where the rocker is nearly horizontal, the effect of that displacement is not as great as it is at the ends.

Q. What if I wanted to set it at say 1700? [247]

A. Setting it at 1700, with pressure applied on the lever, you have to be very delicate about your pressure if you wish to keep it in that position.

Q. Does the weight on there have anything to do with it?

A. The weight is to retract the tappet out of interference with the rocker.

Q. In other words, the plaintiff's invention here over the Marschalk invention is more accurate and positive?

A. That is right; more accurate and positive and more fool-proof, let us say, because pressure on the lever which is used to—

Q. Mechanically it works better?

A. That is right.

(Testimony of Leslie K. Loehr.)

The Court: All right.

Q. By Mr. Flam: Not only does it work better but is it possible with the Marschalk device to adjust the rocker to a desired position in as simple a manner as would be possible in connection with the Leishman tuner?

A. Well, of course, in the Leishman tuner you have one button with one thumbscrew to adjust, whereas, in the Marschalk device your thumbscrew for adjusting the tappet is located probably inside of the set.

The Court: There is no claim of invention on the adjustment end of it, is there? You don't make any claim on that, do you? I say that because in the patent in dispute it is a lever that is being used and the accused device is a [248] push button type. There is no general similarity in the method of adjusting these upon which you are basing a claim, is there?

Mr. Flam: Not the general mode of adjustment.

The Court: As I understand, your claim resolves itself down to three features, the tappet, the rocker and the coaxial position.

Mr. Flam: That at least is the sense of at least one or two of these claims in issue. There are other ways of trying to define the invention, though.

The Court: I have read those claims and it is easier for me to try to work out a crossword puzzle. I am trying in my own mind to resolve those down into a simple formula that I can fix in my own

(Testimony of Leslie K. Loehr.)

mind. I can't fix in my own mind the wording of each one of those claims but I am trying to ascertain exactly that which the plaintiff claims. As I understand his testimony, it is a combination of a tappet, a rocker and a coaxial position that distinguishes this from other automatic tuners.

Mr. Flam: I think that will be a fairly acceptable definition without going into very many technicalities. I think the essence is probably there. The matter of the interpretation of the claims, of course, is something I would like to go into.

The Court: I understand. I am just trying to clarify my thoughts as we go along if such a thing is possible. [249]

Mr. Flam: Before I go on with the testimony, I offer in evidence this lever marked for identification as Plaintiff's Exhibit No. 23. And I offer in evidence this chart that the witness has been using to help him in testifying.

The Court: Is there any objection?

Mr. L. S. Lyon: I couldn't hear what you said at the last.

The Court: He is offering the chart as an exhibit, explanatory of the witness's testimony.

Mr. L. S. Lyon: No, your Honor.

The Court: All right; admitted as the next exhibit in order.

The Clerk: Plaintiff's Exhibit No. 24.

Q. By Mr. Flam: Can you explain more clearly

(Testimony of Leslie K. Loehr.)

perhaps than you have before—or before I go into that, I have here a chassis of a radio set. Do you know what that is?

A. I believe that is a small Crosley radio that came out of that cabinet.

Q. The cabinet I have in my hand?

A. The cabinet you have in your hand; yes.

Q. Do you know anything about its structure?

A. The push button tuning mechanism that is on here is similar in structure to that shown in other Crosley devices, for instance, Exhibit No. 10.

Q. There is a push button there that is different, [250] though. Will you explain to the court what it is?

A. Yes; there is one push button that has been altered.

Q. By the Court: Who did that?

A. That was done at the request of Mr. Leishman.

Q. In other words, it has been changed here for experimental purposes?

A. For experimental purposes, to show the effect of the non-coaxial feature. In other words, a little plate has been added to the treadle bar so that the surface of that plate is above the axis of rotation of the treadle bar. That portion of the tappet or of the plunger, I should say, which originally passed through and now has been extended on the outside for a guide is used then in demonstrating the principle of the off-center— [251]

(Testimony of Leslie K. Loehr.)

Q. Wait a minute now. It comes up in place, doesn't it?

A. Yes. The cam is locked. By removing this——

Mr. Flam: Before you go much further, I would rather have a tag put on that so we can refer to it for identification.

The Clerk: Plaintiff's Exhibit No. 25 for identification.

The Court: You gentlemen are finally getting around to the point where you are demonstrating the thing I was asking about yesterday.

Mr. Flam: What we are trying to do, of course, is to show the importance of this coaxial feature.

The Court: Or unimportance.

Mr. Flam: That is the other side's job.

The Court: It looks to me like you are making a good demonstration right there.

Q. By Mr. Flam: Will you go ahead and explain that special push button?

A. Yes. On Exhibit No. 25 I will adjust the tappet for tuning in a particular station at the end of the dial where the difficulty is most serious. By inserting a screw-driver in the aperture of the push button, I loosen the adjusting screw and I set the dial into an extreme position and bring the lever down in contact, that is, the push button down in contact, so that the—— [252]

Q. Where is the pointer now?

A. We set the pointer at about 1800. And, by

(Testimony of Leslie K. Loehr.)

applying pressure on the screw to hold the tappet in contact with the rocker, I have moved the rotor out of position so that it is not in the place I desired it. We set it at 1800, yet, when we push this button, it brings it back. You have to exert exceptional diligence in the setting of that. I mean, if you have applied sufficient pressure to your screw during the process of adjustment, it would have moved out of adjustment.

The Court: There it is. If I had used a sledge hammer on it, I would have knocked it to pieces.

A. That is true. But in a device built according to Leishman's teachings considerable pressure can be applied on the screw-driver without in any way affecting the adjustment. Moving the dial to its extreme ends, the seriousness of that situation prevails at the extreme ends of the movement where, particularly on one end, the stations are bunched closest together. You can push as hard as you want on that.

Q. By Mr. Flam: This is one of the unaltered levers?

A. This is one of the unaltered levers and one with the coaxial feature and you don't disturb the setting of the radio set or of the tuning, I should say.

Q. By the Court: Will you explain to me the difference in the way that sets and comes in contact with the [253] rocker by reason of the change?

(Testimony of Leslie K. Loehr.)

Q. By Mr. Flam: Can you do that in connection with this chart?

A. Yes; I can do that better in connection with the chart that has been prepared.

The Court: All right.

A. This chart at the top, of course, is the coaxial arrangement in which the tappet is brought in contact with the rocker; and a line drawn from that point of contact on each side toward the center gives us a lever arm of the same length. In the case of the non-coaxial feature we have lever arms of different lengths and a line drawn from the point of contact of the tappet with the rocker on the left-hand side is shorter than a line drawn from the point of contact of the tappet with the rocker on the right-hand side to the center of the rocker. In other words, we have a force moving the tappet downward and that force will be equally distributed between the lobes of the tappet, but, since one lever arm is longer on one side than on the other, with an equal pressure it reminds you—

Q. By the Court: An equal pressure on one side over the other?

A. Yes. It is like children on a teeter-totter. If you put two of them on there of the same weight, the teeter will totter. If you move one of them toward the center, the teeter-totter will move down on that end where [254] the child is farthest from the center.

(Testimony of Leslie K. Loehr.)

Q. Well, it is not necessary to take up time explaining a teeter-totter.

A. What I wished to compare was the distribution of the weight above the center.

Q. I still can't see, from examining these, where there is any difference in the—

A. When they are both locked?

Q. Well, this one is loose or they are both loose.

A. Press hard on it and it moves. Now, we move it to the other direction and now press hard on it. In other words, if you set this at a particular station on the dial, then, when that pressure is exerted, it will tend to move that rocker out of position. And on that particular end of the dial where the stations are bunched the closest together the slightest movement of that is sufficient to detune the set.

The Court: I think, gentlemen, we will take our afternoon recess at this time for five minutes.

(Short recess.)

Q. By Mr. Flam: In connection with this Plaintiff's Exhibit No. 25, when you try to adjust the tappet or striker cam, when the adjustment is for some position near the intermediate position of the ends, is the fact that the tappet or striker cam and the rocker are not in coaxial alignment as important as when an attempt is made [255] to adjust the position of the tappet for a station that is tuned in at either extreme position of the knob?

(Testimony of Leslie R. Loehr.)

A. At the intermediate position of the rocker the difficulty of the non-coaxial feature is not nearly as serious as it is at the ends of the dial or at the extreme angular position, let us say, of the rocker. There is where the angular position becomes the greatest difficulty.

Q. Well, would it be possible by exercising great care to adjust the position of the rocker—of the tappet, rather, even at the extreme positions of the rocker?

A. Yes; it is possible to adjust it at the extreme positions, but without applying pressure to the screw or to the push button you are never certain that that tappet is in contact with the rocker therefore you are not sure of your setting and the slightest displacement of that will detune the set.

The Court: It is all right for you to go ahead with this so far as your record is concerned. The court has tried the instrument and the witness' testimony does not add anything to what the court has already ascertained from an examination and an effort on its part to work the mechanical device. I had no difficulty in setting the device at the extreme end, but it is true that a person has to use a greater amount of care. That was the result of the court's own experiment with the instrument.

The Witness: Of course, this amount of off-center [256] here is not as great as—

The Court: I can understand the reason why. That has been gone into and explained.

(Testimony of Leslie K. Loehr.)

Q. By Mr. Flam: Why is it important to have the rocker most accurately adjusted, or, rather, the tappet most accurately adjusted at the extreme positions of the rocker? Will you explain that in connection with the chart?

A. Well, I have here a chart which illustrates a rocker operatively connected to a condenser and a line drawn through the rocker pointing to a scale at the right and a line drawn through the center of the gear on the condenser pointing to a scale toward the right. A very slight angular displacement of the rocker will throw the adjustment out as much as 300 points.

Q. By the Court: That is the old principle of a lever?

A. That is right.

Q. A crowbar principle?

A. That is right. But, you see, the point is that, regardless where this may be, it has thrown it out that far and whether it is over here or—

Q. It is necessary to be accurate?

A. That is right. It is necessary to accurately adjust the set.

Q. How about these new arrangements that, through the magnetic control, bring these in place; to what extent will they compensate with that?

[257]

A. I am not familiar with magnetic control radio tuners.

(Testimony of Leslie K. Loehr.)

Q. By Mr. Flam: When any material pressure is applied to the push button associated with the non-coaxial tappet, if I may express it that way, in Exhibit 25 for identification— A. Yes.

Q. —did you note off-tuning movement of the set comparable with that shown on the diagram you now have in your hand?

A. Yes; I have. By mounting this set and applying pressure against the screw during the process of adjustment in the extreme position it very easily throws it out 300 points. I am demonstrating now, showing how that movement causes the rocker to rotate out of position.

Q. At the end of the scale or end of the dial where the frequency is up around 1700, or 1500 or 1600 kilocycles, are the movements—or how important, rather, is it to set the dial to an exact figure?

A. Radio sets are so sharp in their tuning now that the slightest movement, even of a hair's breadth off the pointer, will detune the radio. They are very keen, so any movement at all, regardless of how little, is sufficient to affect the setting of the adjustment.

Q. By the Court: May I ask this question: In using the push button here where you sealed or have covered up the [258] hole in the rocker so as to demonstrate the machine without the use of the coaxial movement— A. Yes.

Q. —does the extent that the gadget here—

(Testimony of Leslie K. Loehr.)

A. You mean the tappet?

Q. —the tappet above the rocker, does that have any effect on the extent to which there will be a variation?

A. Oh, yes. If the center is moved up farther, why, of course, your difference will be—

Q. Would the fact that you have a copper plate on here of some thickness, would that have any effect on the degree of accuracy?

A. Yes. That is an attempt to bring the surface of the rocker above the axis of the—

Q. So that the height that the axis is above the rocker the greater will be the variation?

A. You mean the greater the surface is, or the greater the difference between the surface and the axis—

Q. Yes.

A. —the greater will be the variation?

Q. Yes. A. Yes; that is right.

The Court: All right.

Mr. Flam: I want to offer this Crosley set, Plaintiff's Exhibit 25 for identification, into evidence. I want to offer the second chart into evidence. [259]

The Court: Admitted in order.

The Clerk: Exhibit 26.

Mr. Flam: Also the third chart.

The Clerk: 27.

Q. By Mr. Flam: As far as the off-center effect of the brass plate on the Crosley set, Exhibit 25, and the effect and the extent of the off-center of

(Testimony of Leslie K. Loehr.)

the Marschalk lever, Plaintiff's Exhibit No. 23, do you know whether the extent that the tappet in the Crosley set was made non-coaxial with respect to this Marschalk lever—in other words, are they off-center about the same amount in both devices? Do you want to examine this set?

A. Yes; I would like to examine that other set before answering that.

Q. By the Court: There is a difference between the thickness of that metal, isn't there?

A. Yes; there is a difference between the thickness of that. That is why I want to examine it. I would say that the off-center distance is substantially the same. There might be a slight variation.

The Court: May I ask one more question that occurs to me? A. Yes, sir.

Q. May I take your screw-driver?

A. Yes, sir.

Q. Would the place that the pivot is placed in the—what do you call this? [260]

A. The tappet.

Q. —in the tappet have any effect upon that?

A. Yes.

Q. In other words, could not the position of the tappet be changed so that it would be more accurate, or, that is, more stationary?

A. As you bring the pivot point down close to the line of contact you get greater accuracy but you get greater difficulties because of mechanical features. Your rivet becomes smaller and your pivot becomes smaller.

(Testimony of Leslie K. Loehr.)

Q. I know, but at the present time that pivot is apparently placed in about the center.

A. Well, you mean in the thickness of the large hub, let us say, to the bottom?

Q. Across the bottom of that is about the center, is it not?

A. Oh, yes. It is equidistant from each end; yes.

Q. Well, that would be the center, wouldn't it?

A. Well, that is the center in that respect; yes.

Q. The middle, then, of the lower part?

A. All right, the middle, then.

Q. The placing of that pivot in any other position could it be placed in any other position that would change the degree of accuracy?

A. Yes. If it were off center it would be less accurate.

Q. It would be less accurate? [261]

A. Yes.

Q. All right.

A. In other words, the pivot pin is normally in line with the axis of the rocker. That is a vertical line.

Q. By Mr. Flam: Have you made any survey recently as to the push buttons or mechanical tuner mechanisms that have been offered on the market?

A. Some months ago I made an investigation of several retail stores to find out what the type of radio was being offered for sale and the type of tuner used thereon.

(Testimony of Leslie K. Löehr.)

Q. Did you have an opportunity of seeing a good many dozens of sets and of makes?

A. Yes; I examined quite a number of them and found that—

Q. By the Court: What do you mean by "quite a number"?

A. Well, let us say about 8 different models, that is, manufactured by 8 different companies, or something like that.

Q. Here in the City of Los Angeles?

A. Here in the city. Well, they were offered for sale here in the city. I don't know that they were all made here.

Q. Well, I mean the retail market in the City of Los Angeles? A. Right.

Q. By Mr. Flam: Did you find a single one of them that incorporated a tuher mechanism such as that shown in the [262] Marschalk patent?

Mr. L. S. Lyon: If your Honor please, that would not even be acceptable for the purpose of a Gallup poll. He only sampled 8 different—

The Court: The Gallup poll has been reading all right to me.

Mr. L. S. Lyon: What?

The Court: The Gallup poll has been reading all right to me.

Mr. L. S. Lyon: He only took a sample of 8 different sets out of the hundreds that are made, and you could not draw any conclusion from looking at 8 sets.

(Testimony of Leslie K. Loehr.)

Mr. Flam: I do not think he said 8 sets. He said 8 manufacturers.

Q. Is that right? A. That is right.

Mr. L. S. Lyon: How many manufacturers of radios are there?

The Court: I think that is a matter for cross examination as to the weight of his testimony, Mr. Lyon.

Mr. L. S. Lyon: He wants to draw an inference, I think.

Q. By Mr. Flam: Will you answer now?

The Witness: Will the reporter please read that question?

(Question read by the reporter.)

A. No; I found no tuner mechanisms that used any device similar to Marschalk's device. [263]

Q. By the Court: You found tappets, did you?

A. Oh, yes; plenty of tappets.

Q. And rockers?

A. Plenty of rockers displaced coaxially.

Mr. L. S. Lyon: If your Honor please, the Marschalk patent is for use on a radio, a timed radio. It has an automatic timer on it. I wonder if this witness bothered to go look at any of this kind. Was he looking for Marschalk's device or some other kind?

The Court: That you can bring out on cross examination, Mr. Lyon.

Mr. L. S. Lyon: To me, the testimony is so re-

(Testimony of Leslie K. Loehr.)

mote that I should hardly have to cross examine on it.

The Court: Well, you will.

Q. By Mr. Flam: I think some testimony has been offered here regarding the equivalents of lever and push button for moving the tappet into position for tuning a set mechanically. Can you state whether a lever mechanism is the mechanical equivalent of a push button mechanism of this arrangement?

Mr. L. S. Lyon: I object to that as calling for a legal conclusion from the witness. He has not laid the foundation at all for the proof of any equivalency. The witness can't just usurp the functions of the court.

The Court: I will let him answer for what it is worth and we will still see. [264]

A. Yes. A push lever is—or, rather, a push rod is used very often for the same function as a lever. The object of controlling any body that is moving in space is usually to define its magnitude and direction of its movement. Whether or not that would be by a lever or a plunger makes little difference; both constrain the direction.

Q. By Mr. Flam: I will show you page 2019 of Knight's Mechanical Dictionary, Volume III, having a notice on it "Published by Hurd and Houghton, 1877."

Mr. L. S. Lyon: I didn't get that answer. Did

(Testimony of Leslie K. Loehr.)

that witness say that if you just pushed with a crowbar you would get the same effect as if you used it as a lever?

Mr. Flam: Will you read the answer?

(Answer read by the reporter.)

Q. By Mr. Flam: Do you find anything in this volume of the Mechanical Dictionary which substantiates your statement?

Mr. L. S. Lyon: I object to that, your Honor. A witness can't lift himself up by referring to authorities to support his statement. He can rely on his qualifications. You can confront an expert witness on cross examination with contradictory statements from other authorities; but a man can't prove his own statement by reference to other authorities. He has to prove it by his oath and his own qualifications.

Mr. Flam: Of course, you have a right to ask him upon [265] what sources he has drawn for conclusions made by him.

The Court: I will admit it.

A. Well, on page 2019 of this dictionary published in 1877 is poppet valves, Figure D, and Figure G. [266] Reading from the description: D is a "common safety-valve with graduated lever, on which the weight may be set at any required number of pounds' pressure."

Reading the description of G, we find that "the weight is attached to a stem projecting downwardly into the boiler."

(Testimony of Leslie K. Joehr.)

Q. By Mr. Flam: What about Figure F?

A. Figure F shows "a series of removable perforated weights on the valve-spindle are employed," with weights on top, showing that as early as 1877 the force of the weight was exerted directly over the valve or by means of a lever.

Q. Are there any other instances that would show the equivalents of these two types of mechanisms?

The Court: I think we have had enough of that, Mr. Flam.

Mr. Flam: I have a photostatic copy of the title page and page 2019 of Knight's Mechanical Dictionary. In order to be illustrative of this witness' testimony I am offering the photostatic copy in evidence.

Mr. L. S. Lyon: The same objection.

The Court: Admitted.

The Clerk: Exhibit 28.

Q. By Mr. Flam: When you examined these radio sets about which you have testified, some months ago, did any of them incorporate the tappet and rocker in which the tappet and rocker were not coaxial in the tuned-in position? [267]

A. No. All the mechanical radio sets that are used in push-button tuning the tappet was coaxial with the treadle bar, or substantially so.

Q. By the Court: You mean that you examined?

A. That I examined; yes.

(Testimony of Leslie K. Loehr.)

Q. By Mr. Flam: What proportion of the tuners that you saw employed a treadle bar or rocker such as we have been talking about?

A. All of them.

Q. Well, they did not all employ—didn't some of them have other types of tuners?

A. No, I mean with reference to the mechanical tuner of the push-button type. Yes; some of them had types of tuners. Yes; surely there were electrical push-button types which, of course, did not employ the treadle bar. They were switches, I understood.

Mr. Flam: You may cross-examine.

#### Cross Examination

Q. By Mr. L. S. Lyon: Are you particularly versed in the radio art? I mean, is that your field?

A. No, I am a machine designer.

Q. Have you noticed that usually you can tune a radio more sharply with an automatic tuner than you can tuning it manually to your ear? Has that been your experience?

The Court: What was that question? [268]

(Question read by the reporter.)

A. Well, I don't quite see how that could be because to adjust the tuner in the beginning would depend upon your—

The Court: Answer the question, answer the question. A. Well, no.

Q. By Mr. L. S. Lyon: That has not been your experience? A. No.

(Testimony of Leslie K. Loehr.)

Q. You think you can tune them more efficiently, bring in the station more sharply, doing it manually to your ear than you can relying on the automatic tuning that the manufacturer has put in the device?

A. Well, I don't quite understand that question. I mean you have to adjust your radio sets in the beginning and that usually is done with your ear.

Q. Is it always?

A. As far as I know.

Q. Well, do you know?

A. No; I don't know definitely that everybody adjusts a radio with their ear.

Q. Do you know whether or not it is the practice to set these automatic tuners by your ear or by some other method?

A. Well, from my experience, I believe you set it with your ear. [269]

Q. Have you had any experience?

A. Yes; setting a few radio sets.

Q. You have not been in that business?

A. Oh, no; I haven't been in that business.

Q. Have you had any opportunity to see how the manufacturers set these tuners?

A. No; I haven't.

Q. Then, you don't know how they are set at the factory. But I am asking you, just you check—

A. I don't know that they are set at the factory, even.

Q. Have you seen one of these sets like there is on so many automobiles, where there are a certain

(Testimony of Leslie K. Loehr.)

number of buttons for automatic tuning and then a switch that allows you to throw over to manual tuning?

A. Yes; I have seen some; in fact, a friend of mine has one on his automobile.

Q. Have you noticed whether or not he gets sharp tuning with the buttons, with the automatic buttons?

A. Well, I believe you are referring there to those electrical buttons rather than mechanical buttons, are you not?

Q. What about the electrical buttons? Let us talk about those. They give you a sharper tuning than you can get by manual tuning to your ear, do they not? A. I don't know.

Q. Have you made any comparison of that kind?  
[270] A. Not definitely; no.

Q. This matter of what you call coaxiality, another term for that is on-center. I think Mr. Flan used that. Do you understand that? Would you say that was a synonymous term?

A. Used perhaps to describe the action of the tappets or the center of the tappet with respect to the center of the rocker, you might say that they were on-center if they were coaxial. If that is what you mean?

Q. Yes. If those two axes are in alignment, why, they are on-center; if they are in any misalignment, why, they are off-center, are they not?

A. Yes; in that sense they would be off-center.

(Testimony of Leslie K. Loehr.)

Q. And you, as a machine designer, you know, do you not, that it is part of your profession to see that centers are in alignments in mechanical designs? When a misalignment produces any difficulty in the operation of the device you set the machine, as part of your profession as a machine designer, to study and analyze the design to see that those misalignments are avoided; isn't that correct?

A. That is right.

Q. That is your profession, really, to see—

A. Well, machine design, not studying to see that things are on-center, no; but machine design is my business.

Q. Yes. As a machine designer one of the things a machine designer does is to watch things to see that things [271] that ought to be on-center are on-center in his design? A. That is correct.

Q. Whenever you have two members that you want to turn together in the same orbit or to maintain contact with each other as they are turning together, you know that they should be on-center, isn't that correct?

A. Well, they may be coacting in such a way that the resultant would be a center.

Q. The resultant; either they are actually on-center or the resultant amounts to the same thing; isn't that correct?

A. Yes; so they will function together.

Q. In other words, this matter of putting these members on-center is one of the common tools and

(Testimony of Leslie K. Loehr.)

one of the common experiences of a machine designer?

A. Yes. If you have reference to machine elements in a machine; yes.

Q. Let us take it as simple as the hands of a watch. You want the hour hand and the minute hand, say, to turn together; if you wanted them to turn together and stay together you would know that they had to have a common pivot, would you not, or a common axis?

A. If you want the two hands to be together and rotate about the same axis, of course it would be necessary to impose one over the other.

Q. By the Court: They would have to, wouldn't they, [272] if you are going to have a watch?

A. Yes. And, you see, your Honor, perhaps during the early development of watches—

The Court: The only reason I am asking that question is that it seems to me you are, in a sense, avoiding answering his question.

A. Well, I don't mean to.

The Court: Without giving a clean-cut direct answer. You are hedging a little bit.

The Witness: Well, I don't mean to hedge about it because his statement is correct. You have to have the centers.

The Court: Let us get down to it.

Q. By Mr. L. S. Lyon: If the center of those two watch hands were off-center the watch could not keep time, could it?

(Testimony of Leslie K. Loehr.)

A. No; there would be interference of the rotation on the one hand.

Q. And wherever in a mechanical design you have two members that are to turn together or rotate together, as a mechanical designer you must see that they are on-center?

A. That is right.

Q. Or sooner or later somewhere in the operation they are going to clash, isn't that correct?

A. That is right; yes.

Q. Now, isn't that what happens in this tappet on this [273] rocker, just the same thing?

A. No; not exactly, because, you see, you are moving the one element in position to actuate the other just a little bit different than in a watch, let us say, where the hands are disposed that way permanently. This is not a permanent disposition of those two pieces. Only when they are pushed into contact does that prevail.

Q. Yes. But the only time that they set up any unbalanced forces or cause any interference is when they are in contact; that is correct, isn't it?

A. That is right.

Q. So the principle is really the same, isn't it? The principle is that you desire those two parts, the tappet and the rocker, to turn together, so you want them to be on-center; isn't that the principle?

A. Yes; that is the principle.

Q. Now, you have said that a lever and push

(Testimony of Leslie K. Loehr.)

button are equivalents. Are you answering in a legal sense or in what sense are you answering?

A. Well, I am answering in the sense that, as disclosed on the chart, the thing that we are essentially concerned with is the movement imparted to the tappet as it approaches the rocker. Now what you desire to do is to control the direction of that movement and the amount.

Q. Then, you think anything that will accomplish that result is an equivalent? [274]

A. As far as movement of that tappet is concerned, I certainly do.

Q. Then, your definition of an equivalent may be different from mine.

A. That may be.

Q. Perhaps you had better tell us, if you can, how you define an equivalent in the sense that you have used it in your testimony.

A. In the sense that I have used it, I think I have already explained that, as far as the tappet is concerned, what you desire is the control of the direction of the movement of that tappet with the lever, either control its direction by the movement of the lever about the shaft Q on the push rod, the guides, and control the direction of that push rod so that it reaches the—so that the tappet reaches the rocker and that their axes coincide.

Q. Is there any similarity in that use or comparative use of a lever and a push rod between those two, except that they both perform this same function that you have described?

(Testimony of Leslie K. Loehr.)

A. That is the only place where they are similar because that is all you are concerned with.

Q. Otherwise, their own method of accomplishing that function and their own form, etc., may be entirely different?

A. The fact remains, however, that—

Q. Well, can you answer that? [275]

The Witness: Please read the question again.

(Question read by the reporter.)

A. The form of the levers may be different; oh, yes.

Q. Have you given any consideration to whether or not you would regard the two bars, the two inter-related bars actuated by the tappet in this Zenith device, would be the equivalent of a rocker?

A. In the respect that they impart rotary motion to a condenser.

Q. In the respect that they perform the same function they are equivalents, are they not?

A. Mechanically, no. No; they are not equivalents in that respect. I mean that they do transmit motion to the condenser shaft.

Q. These two bars, these two inter-related bars in the Zenith device; perform the same function in that device that the rocker does in Mr. Leishman's patent, do they not?

A. That is right. They rotate the condenser.

Q. And in that sense they are equivalents, are they not?

(Testimony of Leslie K. Loehr.)

A. Yes; they are equivalents in that sense and they both of them rotate in the condenser.

Q. In the same sense that you have compared a lever and a push-button a moment ago as equivalents, these two bars are the equivalent of a rocker, isn't that true?

A. Well, no. There is a little bit of difference there. You have given linear displacement to a member; [276] whereas, in this position you have given rotation to a member.

Q. Well, I understand that. But these bars are the equivalent of the rocker in that they perform the same function, and in that sense they are equivalent for the same reason that you said a lever and a push button was equivalent a moment ago?

A. They rotate the condenser, if that is what you mean.

Q. Can't you answer that question just definitely?

A. That is exactly what I said.

Q. Or else deny it?

A. No; I can't answer that question without an explanation due.

Q. I notice in your chart, Exhibit No. 24, you have omitted or dropped off part of the plunger in those illustrations of the defendant's plunger. Did you do that on purpose?

A. Well, we are willing to concede that the guide that extends on through for guiding that plunger travels the same as it does in the case exactly.

(Testimony of Leslie K. Loehr.)

Q. Is not that the real reason for that portion—is not that the real reason for extending those plungers through the rocker plate in the defendant's device, so as to continue down to get a bottom bearing for the plungers?

A. No; I don't think it is the real reason in the defendant's device. [277]

Q. Are you sure of that?

A. Well, that may be their reason but it still remains that the axes of the tappet—or the axis, rather, I should say, of the rocker coincide when they are in the operative position. [278]

Q. You would say it would be a pretty poor design, as a designer, if they did not have those centers aligned, wouldn't you?

A. Well, here is a demonstration—

Q. Answer that yes or no, as a designer, if they did not have?

A. Yes; you have got to align the plunger.

Q. No. I am saying this: If you examined a tuner-like the defendant's and found that there was any such discrepancy, as you pointed out in that model here, where you had disturbed the coaxiality; it would be apparent to you at once that the trouble was that you did not have the centers on center; and you would say that it was a poor design from the standpoint of an ordinary designing job, wouldn't you?

A. No; I am not sure that I would.

Q. Well, are you sure that you would not?

(Testimony of Leslie K. Loehr.)

A. No; I am not sure that I would not. It would require some study, even this.

Q. You give study every day, as a designer—

A. That is right.

Q. —to check up on concentricity and alignments and things being on center?

A. That is right.

Q. That is your business as a designer?

A. That is right. [279]

Q. And you could check that out of that device without much trouble, couldn't you, if you saw any such difficulty as you have been exhibiting here?

A. Well, I might.

Q. Now let me have that device just for a minute. We are referring to Exhibit No. 25. When you came to substituting a different tappet here at this end push button you took the trouble of putting on some kind of an addition here. What did you do that for?

A. That is a guide for the plunger.

Q. What did you want that on there for?

A. I just explained to you a minute ago that you had to guide the direction of that tappet.

Q. Why?

A. In order that it can approach the center or the axis of the tappet can approach the axis of the rocker.

Q. In other words, in the defendant's device it is necessary that there be a bearing below the rocker

(Testimony of Leslie K. Loehr.) :

for the plunger as well as a bearing above the rocker, is it not?

A. No. No; I can put a guide up here.

Q. Well, you have to have a guide somewhere, don't you?

A. Oh, yes. Yes; you have to have a guide.

Q. And the correct place is to have it at both ends of the plunger, isn't it, from a designing standpoint?

A. No; not necessarily.

Q. The convenient place, at least, where he puts it. [280] But you could not just put a push button on here on a plunger and a tappet on there and not have any guide for it?

A. That is right. That is what it is there for.

Q. Is there any guide in the plaintiff's patent here in his drawing? Has he got any guide at all?

A. The effect of the guide is the arm rotating about the shaft.

Q. In other words, the plaintiff's reissue patent design here for guiding his tappet depends on mounting it on a shaft Q and rotating the tappet about that shaft by means of the lever?

A. Rotating the lever about the shaft, yes, which carries the tappet.

The Court. Now, let me get the point.

Q. Do I understand that the effect of this bar, which I believe in the patent is described as Q, serves the place of a guide that is used on the push button?

(Testimony of Leslie K. Loehr.)

A. Yes. You see, your Honor, it constrains the movement about that point, about that axis.

Q. It definitely positions it?

A. Yes; or definitely positions it.

Q. There is a definite axis there so it will go right back to the same place each time?

A. That is right.

Q. By Mr. L. S. Lyon: Then, there is more to this question of changing from a lever type to a push button type [281] than just merely the difference between a lever and a push button. You have also got to give consideration to a different way of guiding a push button from the way that the plaintiff shows of guiding a lever; isn't that correct?

A. Well, the mere fact that they are guided, is that what you mean?

The Court: Well, just a moment now.

Q. Under the plaintiff's patent here there was a guide because it was tied into an axle there that in the patent that is described as Q?

A. That is right.

Q. And that guides the lever so that when the tappet comes down it hits exactly the same place on the rocker every time?

A. That is right.

Q. All right. Now, when you eliminate Q or the tie-in to Q and want that tappet to hit exactly the same spot in the rocker every time, you have to have something as a guide?

(Testimony of Leslie K. Loehr.)

A. That is right. You substitute something for Q.

Q. So that in the change from a lever to a push button style you have to have a guide for that push button that takes the place of the anchor to which the lever was fastened before?

A. It takes the place of Q; yes.

The Court: That was the point, was it not? [282]

Mr. L. S. Lyon: That is right.

A. That is right.

Q. And in the defendant's design, why, the defendant has its push button plunger and he has provided a guide above the rocker and a guide below the rocker. You notice that, do you not?

A. Yes; depending upon whether it is horizontal or vertical.

Q. And in all these various other tuners that have apparently been placed on the market since the defendant's design was first put on the market for sale you have noticed that, have you not?

A. With the exception of—

Q. 20?

A. 17, in which the guide is above.

Q. Yes.

The Court: 17, is that the other invention of the plaintiff?

Mr. Flam: No.

Mr. L. S. Lyon: No. This is this device which you stated looked like a cradle.

(Testimony of Leslie K. Loehr)

A. I might also add that in Exhibit 20 they have gone around the side for the guide.

Q. But they are above and below.

Q. By the Court: Then the main point is they have guides? [283]

A. That is right; they have guides.

Q. Whether they are up above or where they are, they have to be guided if it is not tied into an axis? A. Like on a lever.

Q. Like on a lever?

A. That is right.

Q. By Mr. L. S. Lyon: And the defendant's plunger is made to extend through the rocker so that he can get that guide below the rocker; that is correct?

A. That is right. Yes; that is right.

Q. And you have not attempted to show in your comparison on this Exhibit 24 the bottom guide or the fact that the plunger extends through the plate for the purpose of acting with the bottom guide, have you?

A. The chart does not show it, but from the practical point of view we are willing to concede that that guide does extend below; I mean we are moving that, we are illustrating a force, rather, it is schematic.

Mr. L. S. Lyon: That is all, thank you.

Redirect Examination

Q. By Mr. Flam: In making the adjustments of sets utilizing mechanical tuners, isn't it a fact

(Testimony of Leslie K. Loehr.)

that you wish to tune the set into a different set of stations, depending upon where you happen to be using the set?

A. If you mean the locality? [284]

Q. Yes. A. Yes, indeed.

Q. In other words, if you were in the eastern part of the United States—

The Court: You do not have to go as far as the east. I drove up to Portland this last summer and I know that we had trouble and had to abandon our tuning device; so the court will take judicial knowledge of that. If it is not judicial knowledge, it will take actual knowledge from experience. It is one of the experiences of life that we are all enjoying these days.

Q. By Mr. Flam: On that basis would it be possible to set radio sets in the factory for use indiscriminately all over the country?

A. No.

Mr. Flam: That is all. [285]

Mr. Flam: We have been talking about these disclaimers and I would like to offer in evidence certified copies of two disclaimers filed in connection with the reissue patent in suit.

The Court: They may be admitted.

The Clerk: Plaintiff's Exhibits 29 and 30.

Mr. Flam: Also, since the reissue patent is a division of a prior application, and in order to complete the record, I will offer a copy of Leishman Patent No. 2,084,851, of which the reissue application is a division.

The Court: That is the 1934 patent, is it?

Mr. Flam: That is the patent that was applied for December 15, 1934. It shows other forms of tuners that are attempted to be protected by the claims of that patent.

Mr. L. S. Lyon: Of course, that offer does not really show what was in that application at the time that the parent of the original application was issued, upon which the reissue patent in suit was granted, because that is what the patent issued on, what was left of that original application.

The Court: He says it completes the record.

Mr. L. S. Lyon: I don't think I have any objection to it but I don't think it establishes the point Mr. Flam says he wants to establish.

Mr. Flam: We may have to offer in evidence a complete file wrapper of that original case. On doing that, of [286] course, this exhibit may be withdrawn.

Your Honor, I didn't think we would finish quite so soon. We expect to be here with another witness tomorrow morning.

The Clerk: Do I understand that last exhibit is admitted?

The Court: Admitted.

The Clerk: Plaintiff's Exhibit No. 34.

The Court: How long is it going to take you to finish?

Mr. Flam: I think we can finish in about an hour tomorrow.

The Court: And how long will it take you to put on your case, Mr. Lyon?

Mr. L. S. Lyon: I only have two witnesses, your Honor. But we have some depositions that were taken in Cincinnati. They are not very long. I don't suppose we need to read them in court but your Honor might read them.

The Court: Are they the ones already on file?

Mr. L. S. Lyon: Yes. Have you read them already?

The Court: Yes.

Mr. L. S. Lyon: Then, we will consider them read when the time comes, so that will save some time. We may finish tomorrow, I mean my witnesses are not going to be very long.

The Court: Then, we will adjourn until tomorrow morning at 10 o'clock. [287]

(An adjournment was taken until Thursday, October 17, 1940, at 10:00 o'clock a. m.) [288]

Mr. Flam: I think, under the new Rules, it is required that interrogatories propounded and answers be introduced in evidence. They are on file and it has been the custom, I believe, to do that. And I want to offer in evidence the interrogatories.

The Court: I think you had better read those so the court will have them clearly in mind.

Mr. Flam: I will mention the numbers. It is Interrogatories 1, 2, 3, 16, 17, 25, 26 and 32 and their answers.

"Interrogatory 1. Has defendant, within six years prior to September 13, 1938, sold radio

receivying sets supplied to it by Crosley Radio Corporation of Cincinnati, Ohio?

"Answer yes." [290]

Interrogatories numbers 2 and 3, answered in a common answer, are as follows:

"Interrogatory 2. Did any of such sets referred to in Interrogatory 1 above, incorporate a structure for push button tuning substantially as illustrated and described in the document Exhibit A attached hereto?

"Interrogatory 3. If your answer to Interrogatory 2 is in the negative, explain in detail in what particulars the tuners supplied with said Crosley Radio Corporation radio sets differed from that illustrated and described in Exhibit A.

"Answer to Interrogatories 2 and 3. We have sent to plaintiff's counsel a radio receiver embodying the structures which we conclude from Exhibit A attached to the interrogatories to be the structure charged to infringe. This device will speak for itself."

I believe, your Honor, that that is already in evidence.

"Interrogatory 16. Furnish full particulars of the structures referred to in paragraph XI of defendant's answer to the bill of complaint,

"Answer to Interrogatory 16. The radio receiver sent to counsel for plaintiff, as above set forth, embodies the tuning structure of defend-

ant referred to in paragraph XI of defendant's answer.

"Interrogatory 17. With regard to paragraph XI of defendant's answer to the bill of complaint herein, state [291] when the defendant first commenced its public use, offer for sale and sale of the structures referred to in said paragraph.

"Answer to Interrogatory 17. There are two aspects to the defense of public use, offer for sale and intervening rights, (a) of the nominal defendant, (b) of The Crosley Corporation, who is, as plaintiff well knows, defending this action. (See answer to Interrogatory 32).

"(a) As to the nominal defendant, the first date of offer for sale is about February 21, 1938, continuing therefrom to date.

"(b) As to The Crosley Corporation, on about January 27, 1938, an automobile receiver containing the challenged push button tuner was first shipped. The push button tuning device employed in said automobile receiver and like that embodied in the receiver shipped to plaintiff's counsel, was later embodied in other models of household and automobile receivers of which the first of the additional models was shipped to dealers on about May 17, 1938.

"Interrogatory 25. State as accurately as possible the total number of radio receiving sets incorporating the structure referred to in paragraph XI of defendant's answer to the bill of

complaint herein, that were sold by defendant for the year 1938, and for the first eleven months of the year 1939.

"Answer to Interrogatory 25. The receiving sets shipped [292] by The Crosley Corporation to Associated Wholesale Electric Co. in 1938 and the first eleven months of 1939 were 1,002 in number. It is believed that these receivers were substantially all of them sold during said period.

"As to The Crosley Corporation, some 5,000 automobile receivers containing the challenged tuner were shipped previous to a study of plaintiff's original patent, later reissued. After study of said patent The Crosley Corporation sold 150,538 receivers of various types containing said challenged tuners in 1938 and 67,656 receivers also containing the same tuners in the first eleven months of 1939.

"Interrogatory 26. Identify the documents, if any, upon which you base your answer to Interrogatory No. 25.

"Answer to Interrogatory 26. The sales records and production reports of The Crosley Corporation.

"Interrogatory 32. State whether or not Crosley Radio Corporation of Cincinnati, Ohio, is undertaking the defense of this suit.

"Answer to Interrogatory 32. Yes." [293].

I also offer in evidence as a part of the Plaintiff's Exhibit 22, the Crosley set.

The Court: Has that been introduced?

Mr. Flam: I am quite sure it has.

The Clerk: No; that is for identification.

Mr. Flam: I offer the Crosley set, Plaintiff's Exhibit 22 for identification, in evidence.

Mr. L. S. Lyon: No. 22?

Mr. Flam: I thought it was introduced.

Mr. L. S. Lyon: I have it down as already No. 22.

The Court: The clerk says not, so we will go by the clerk's records. It is admitted.

Mr. Flam: I offer that chassis in evidence, and also to be marked, if your Honor does not object, as Plaintiff's Exhibit No. 22-A, the instructions for Crosley radio receiver which was No. 718, which I obtained in connection with that set.

Mr. L. S. Lyon: No objection.

The Court: All right, admitted.

Mr. L. S. Lyon: The transcript shows that Exhibit No. 22 is the chassis.

The Court: It would not make much difference. It is admitted now so the record will be complete.

Mr. L. S. Lyon: No. Just so we won't be looking for two different exhibits, I would just like that to appear in the record, that my understanding is that Exhibit 32 is [294] also Exhibit 22.

Mr. Flam: No. This is offered as 22 now.

Mr. L. S. Lyon: Oh, it is offered now as '22. Excuse me. I thought we were getting a second number for it.

Mr. Flam: I want to call Mr. Ellsworth to the stand. [295]

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